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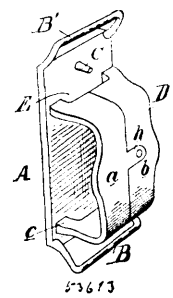
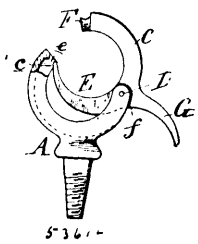
No. 53,613. Harness. (*Harnais.*)



Henry E. Detzer, Fraser, Michigan, U.S.A., 1st October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. In a harness, the combination with the girth, of the plate, an arch through which the girth is adapted to pass, eyes or loops on the plate, and a pin beside one of the end loops and without the arch, substantially as described. 2nd. In a harness, the combination with a girth, of a plate, an arch through which the girth is adapted to pass provided with apertures, eyes or loops raised above the plane of the plate in line with said apertures, a pin opposite one of the end loops, the martingale passing through the forward eye and engaging with the pin and the back straps connected to the rear eye, substantially as described. 3rd. In a harness, a metallic connection of the kind described comprising the plate A, raised eyes or loops B B^1 at the ends thereof, the pin C opposite one loop, the arched frame D having apertures E at each end and formed of the sections *a b* connected together and to the plate, for the purpose described. 4th. A metallic connection of the kind described, comprising the plate A, the recessed eyes or loops B B^1 at the ends thereof, the pin C, the arch having at its outer corners the hooks *d* adapted to engage in apertures in corners of the plates and the overlapping connecting plate *h*, the parts being arranged substantially as and for the purpose described. 5th. A metallic connection for harness comprising a base plate, eyes or loops at two ends thereof, a pin on the base plate adjacent to one of said loops, and an arch through which a strap is adapted to pass on the base plate, having apertures in its legs in line with said loops, substantially as described.

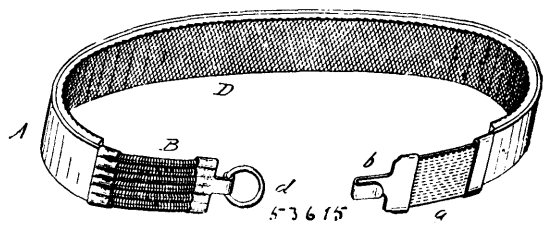
No. 53,614. Check-rein Hook. (*Crochet de rênes.*)



Joseph R. Gump, Milan, Michigan, U.S.A., 1st October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—A check-rein hook, comprising the base, the U-shaped hook thereon, having its front arm higher than the rear arm, a correspondingly-shaped frame centrally pivoted on the rear arm, a groove in the inner face of the hook in which the end of one arm engages, and a spring-tongue on the hook at the upper end of the forward arm, a locking-lug on the upper end of the frame and a finger-piece on the frame for actuating the same.

No. 53,615. Garter. (*Jarretière.*)



Bernhard Dreyfus, New York, State of New York, U.S.A., 1st October, 1896; 6 years. (Filed 8th September, 1896.)

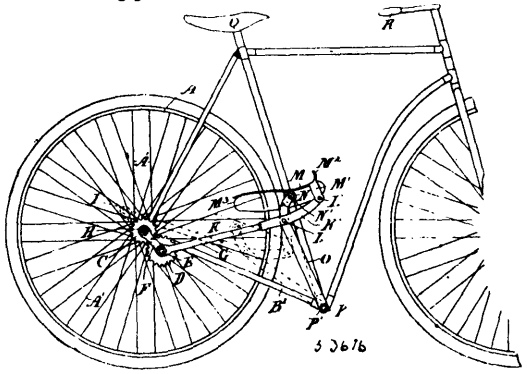
Claim.—1st. A garter, having its inner surface composed of soft vulcanized rubber having numerous protuberances on its inner surface, in the manner as a coarse file, substantially as herein set forth. 2nd. In a garter, the combination with a body piece, of elastic end pieces and fastening device attached thereto, and a soft rubber lining on such body piece, which lining is provided on its exposed surface throughout, with small protuberances, substantially as herein set forth.

No. 53,616. Driving Mechanism for Bicycles, etc. (*Mécanisme conducteur pour bicycles, etc.*)

Franz Joachim Alexander Kindermann, Melbourne, Victoria, Australia, 1st October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. In driving mechanism of bicycles and the like machines, in combination, a wheel as C attached to the hub of driving-wheel of machine, a wheel as D set upon a pin as E and arranged to travel around and actuate C, cranks as F and I, internal axle as H and connecting rods as G and K, substantially as and for the purposes set forth. 2nd. In driving mechanism of bicycles and the like machines, in combination, a wheel as C attached to the hub of the driving-wheel of the machine, a wheel as D set upon a pin as E and arranged to travel around and actuate the wheel C, cranks F and I,

connecting rods G and K, foot-pedals M M, and rocking lever as O, said lever being provided with an antifriction roller as N, sub-



stantially as and for the purposes set forth. 3rd. In driving mechanism of bicycles and the like machines, the general combination and arrangement of the whole of the parts substantially as herein described, forming my complete driving mechanism for bicycles and the like machines, substantially as illustrated on the accompanying drawings.

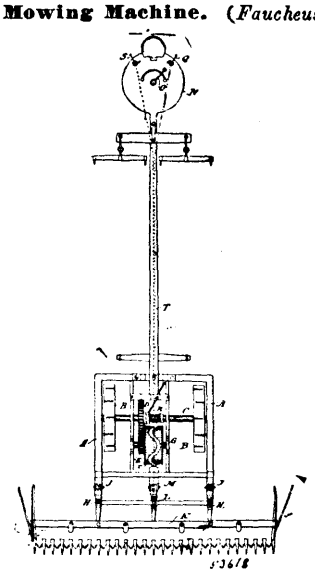
No. 53,617. Mixture for Treating Vegetable Fibre.

(*Mélange pour le traitemeut de fibres végétals.*)

Charles Efros and Vincent Paul Travers, both of New York, State of New York, U.S.A., 1st October, 1896 ; 6 years. (Filed 1st April, 1896.)

Claim.—1st. A mixture for treating fibre composed of the following ingredients in about the proportions specified, silicate of magnesia, glucose, wheat flour, paraffine, soap, creosote, phosphate of soda and tallow, with a suitable vehicle, as specified. 2nd. A mixture for treating fibre composed of the following ingredients in about the proportions specified, silicate of magnesia, glucose, wheat flour, paraffine, soap, phosphate of soda, tallow and a vehicle, as specified. 3rd. A mixture for treating fibre composed of the following ingredients in about the proportions specified, silicate of magnesia, glucose, wheat flour, paraffine, soap, creosote, phosphate of soda, tallow and paraffine oil, as specified.

No. 53,618. Mowing Machine. (*Faucheuse.*)



Stephan B. Jonsson and Rev. Magnus J. Skaptason, both of Winnipeg, Manitoba, Canada, 1st October, 1896 ; 6 years. (Filed 8th September, 1896.)

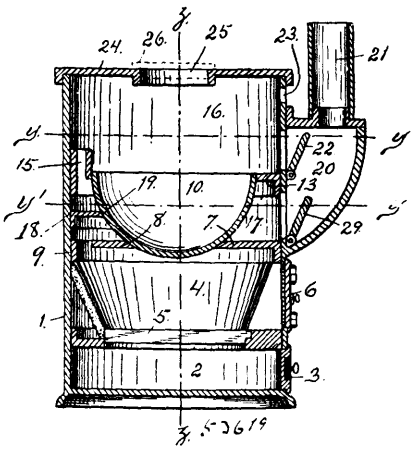
Claim.—The combination of the cylinder or cam F worked by the driving-wheels B and by means of the groove in the cylinder or cam F working the lever M which being attached to the knife bar in the cutter bar K works the knives in such manner as to cut hay, as hereinbefore set forth.

No. 53,619. Garbage Crematory.

(*Machine pour détruire les tripailles.*)

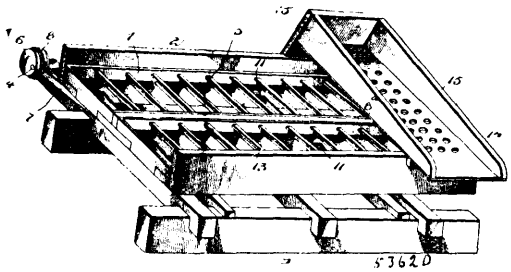
The Buffalo Steel House Company, assignee of Frederic K. Plumbly, both of Buffalo, New York, U.S.A., 1st October, 1896 ; 6 years. (Filed 11th September, 1896.)

Claim.—1st. The herein described garbage or excrement crematory, the same consisting of an outer casing, two transverse partitions dividing the casing into three chambers the lowest of which is a combustion chamber, said partitions being provided with openings



near their centres, a pot removably closing said openings and leaving a passage around it within the central chamber, said partitions being also provided with openings near one side of the casing producing communication between the several chambers, the upper chamber being provided with air inlet openings and the central chamber with an outlet opening for the products of combustion, and an exit flue communicating with the latter opening, as and for the purpose set forth. 2nd. The herein described garbage or excrement crematory, the same consisting of an outer casing, the transverse partitions dividing the casing into three chambers the lowest of which is a combustion chamber, said partitions being provided with openings near their centres, a hemispherical pot hung on trunnions in the upper partition and closing the opening therein and that in the lower partition, one of the trunnions having a crank handle outside the casing, said partitions being also provided with openings near one side of the casing producing communication between the several chambers, the upper chamber being provided with air inlet openings and the central chamber with an outlet opening for the products of combustion, and an exit flue communicating with the latter opening, as and for the purpose set forth. 3rd. The herein described garbage or excrement crematory, the same consisting of an outer casing, two transverse partitions dividing the casing into three chambers the lowest of which is a combustion chamber, said partitions being provided with openings near their centres, a pot removably closing said openings and leaving a passage around it within the central chamber, said partitions being also provided with openings near one side of the casing producing communication between the several chambers, a deflector extending from the casing to the side of the pot and standing between these side openings in the two partitions, the upper chamber being provided with air inlet openings and the central chamber with an outlet opening for the products of combustion, and an exit flue communicating with the latter opening, as and for the purpose set forth. 4th. The herein described garbage or excrement crematory, the same consisting of an outer casing, two transverse partitions dividing the casing into three chambers the lowest of which is a combustion chamber, said partitions being provided with openings near their centres, a hemispherical pot hung on trunnions in the upper partition and closing the opening therein and that in the lower partition, one of the trunnions having a crank handle outside the casing, said partitions being also provided with openings near one side of the casing producing communication between the several chambers, a deflector extending from the casing to the side of the pot and standing between these side openings in the two partitions, the upper chamber being provided with air inlet openings and the central chamber with an outlet opening for the products of combustion, and an exit flue communicating with the latter opening, as and for the purpose set forth. 5th. The herein described garbage or excrement crematory, the same consisting of an outer casing, two transverse partitions dividing the casing into three chambers, the lowest of which is a combustion chamber, said partitions being provided with openings near their centres, a pot removably closing said openings and leaving a passage around it within the central chamber, said partitions being also provided with openings near one side of the casing producing communication between the several chambers, the upper chamber being provided with air inlet openings and the central chamber with an outlet opening for the products of combustion, an exit flue communicating with the latter opening and extending thence upward to a chimney, a damper controlling this opening, a return opening between the flue and the upper chamber, and a damper controlling this opening, as and for the purpose set forth.

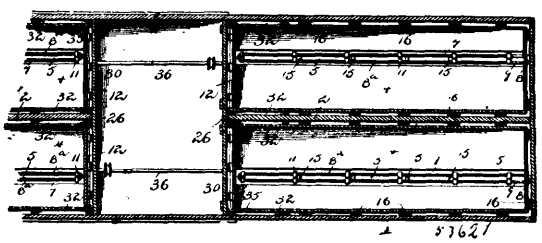
No. 53,620. Ore Concentrator. (*Concentrateur de minerai.*)



Merchant Stoddard and Charles H. Scott, both of Farmington, Iowa, U.S.A., 1st October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—In an ore concentrator, a riffle-pan comprising a rectangular tray having an imperforate bottom which is centrally and longitudinally depressed to form a V-shaped gutter, a series of transversely disposed riffles located in the bottom of the pan, the bottom edges of the riffles being separated from the bottom of the pan by intervening V-shaped spaces, and a pendant extension of the pan forming a pocket or receptacle which is arranged centrally of one end of the pan and at the terminus of the V-shaped gutter, substantially as and for the purpose described.

No. 53,621. Refrigerator Car. (*Char réfrigérateur.*)



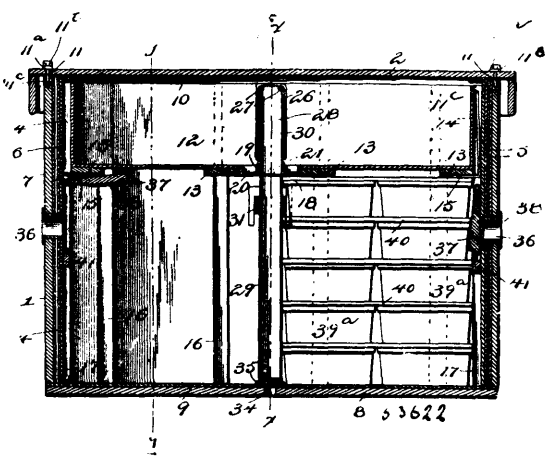
Joseph Thomas and Jacob M. Truby, both of Starke, Florida, U.S.A., 1st October, 1896; 6 years. (Filed 9th September, 1896.)

Claim.—1st. A refrigerator, provided at its top with an ice pan or receptacle, comprising vertical sides and ends, and a bottom having a longitudinal opening and provided with an upwardly-extending flange surrounding the opening, combined with screens disposed vertically above the flange and extending the entire length of the pan or receptacle, and forming an inverting air-space open at the top to permit an unobstructed circulation of air through the pan, said screens having their upper edges arranged in the same plane as the upper edges of the sides of the pan, vertically-disposed posts arranged within the space between the screens and extending from the upper edges of the latter to the lower edges of the flanges of the bottom of the pan, and means for securing the screens to the posts, substantially as described. 2nd. In a refrigerator, the combination of a platform provided with a longitudinal opening and inclined at opposite sides of the opening, transverse bars 15 supporting the platform and extending across the opening thereof, an ice pan or receptacle comprising vertical sides and ends, and a bottom having a longitudinal opening registering with the opening of the platform and sloping at opposite sides of the opening to fit the platform, said bottom being provided at opposite sides of the opening with depressions, or gutters 7, arranged in the opening of the platform, and supported upon the transverse bars 15, screens extending upward from the bottom of the pan at opposite sides of the opening from one end of the pan to the other, and vertical posts arranged at intervals between the screens, substantially as described. 3rd. The combination of a car, provided with a refrigerator-compartment, a rigid platform arranged at the upper portion thereof, an ice-receptacle mounted on the platform, uprights supporting the centre of the platform, a yieldingly-mounted platform arranged at the bottom of the compartment and supported by springs, the vertically-disposed bars 28, mounted on and movable with the yielding platform and located at intervals adjacent to the uprights and suitably connected and forming a shield to prevent the contents of the compartment from coming in contact with the uprights, and the end bars 21 and 22 carried by the platform and provided with springs interposed between them and the walls of the compartment, substantially as and for the purpose described.

No. 53,622. Refrigerator Crate. (*Réfrigérateur.*)

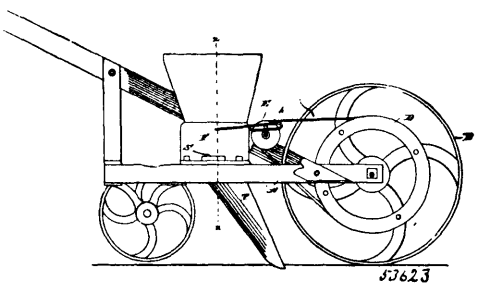
Joseph Thomas and Jacob M. Truby, Starke, Florida, U.S.A., 1st October, 1896; 6 years. (Filed 9th September, 1896.)

Claim.—1st. In a refrigerator, the combination of a box or body provided with a ventilating opening, an automatically-opening door arranged to cover the ventilating opening, a catch or latch for holding the door in a closed position, and a bar connected with the catch or latch and arranged to project at the top of the refrigerator, and a removable cover arranged to engage the bar, whereby the door



will be automatically released when the cover is in position, substantially as described. 2nd. In a refrigerator, the combination of a box or body provided with an opening for ventillating it, a cover, an automatically-opening door arranged to cover the ventilating opening, a pivoted latch engaging the door to hold the same closed, and an operating bar connected with the latch and arranged to be engaged by the cover to release the door, and means for throwing the latch automatically in engagement with the door when the cover is removed, substantially as described. 3rd. In a refrigerator, the combination of a body or box, a removable ice-receiving pan or receptacle arranged within the box or body and provided with a discharge opening, a cover for the body or box, a cut-off arranged to cover the discharge opening of the pan or receptacle, and an operating rod or bar connected with the cut-off and arranged to be engaged by the said cover, whereby the cut-off is automatically opened when the cover is placed in position, substantially as described. 4th. In a refrigerator, the combination of a box or body provided with a ventilating opening, an automatically opening door arranged to cover the ventilating opening, a catch or latch for holding the door in its closed position, a removable cover for the box or body, and means for automatically throwing the catch or latch out of engagement with the door when the cover is placed in position on the box or body, substantially as described.

No. 53,623. Seed Planter. (*Semoir.*)

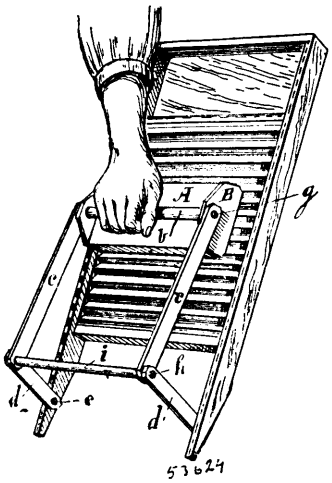


Hiram A. Bacon, Pontiac, Michigan, U.S.A., 1st October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—1st. In a seeder, the combination of a rotary block provided with a vertically disposed rim and openings of various sizes through said rim, a hopper into which a segment of the rim projects, a plurality of vibrating stirring fingers arranged to vibrate in front of the opening through said rim, and means for producing such vibratory motion, substantially as described. 2nd. In a seeder, the combination of a hopper, a rotary block projecting thereinto provided with a vertically disposed rim and holes through said rim of various sizes for the exit of seed, vibratory fingers adapted to vibrate in front of said opening, and a sliding valve arranged to graduate the size of the opening through which the seed passes, substantially as described. 3rd. In a seeder, the combination of a rotary block provided with a vertically disposed rim and openings of various sizes through said rim, a hopper into which a segment of the rim projects, means for forcing the seed from said hopper through the spout, and a looped drag adapted to cover the seed dropping from said spout, substantially as described. 4th. In a seeder, the combination of a rotary block provided with a vertically disposed rim and openings of various sizes through said rim, a hopper through which a segment of said rim projects, a plurality of vibrating stirring fingers arranged to vibrate in front of the opening through said block, a pair of marking guides, one located on each side of the seeder frame, a flexible shifting cord the ends of which are secured

to the markers and the bight of which passes back to and engages with a series of pins located on the frame of the seeder, substantially as described.

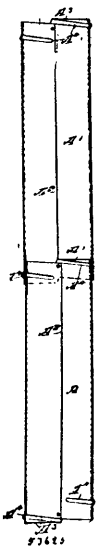
No. 53,624. Washboard Attachment.
(*Attache pour planches à laver.*)



Samuel Stephenson, Hampton, New Brunswick, Canada, 1st October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—The mode in which the levers *c* and *d* are attached to each other and to the washboard and to the rubber handle *b*, which permit a free or oscillating motion of the rubber and so enable it to move the whole length of the washboard (both up and down) taking in any thickness of clothes, maintaining when desired the under surface of the rubber exactly parallel to the plane of the washboard at all points of contact, substantially as and for the purposes hereinbefore set forth.

No. 53,625. Pipe Joint. (*Joint de tuyau.*)



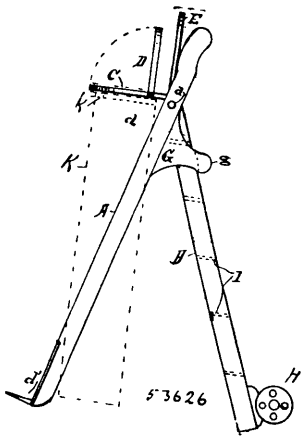
John Alfred Nelson, Nebraska City, Nebraska, U.S.A., 1st October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—A pipe section formed with an extension beyond the seam and at one side thereof, and a thread formed in the section and beginning at the said extension and terminating at the seam and at the side opposite to that on which the extension is formed, substantially as shown and described.

No. 53,626. Store Truck. (*Camion de magasin.*)

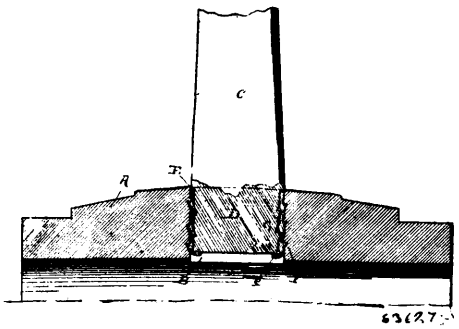
Arthur Hitchings, Muskegon, Michigan, U.S.A., 1st October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—1st. The combination in a step-ladder, and store truck, of a bag-holder pivoted to the top of the ladder stiles by a hinge consisting of hooks secured to the back edges of the stiles with a space between their ends and the tops of the stiles for the introduction of corresponding hooks projecting out at right angles from the back ends of the bow that supports the bag, a guard and bearing surface on the stiles, and supporting offsets on the arms of the bow,



substantially as and for the purpose set forth. 2nd. The combination with a store truck having a step-ladder pivoted to its upper end, of a adjustable bag-holder and shelf consisting of two hooks secured to the tops of the step-ladder stiles in position to receive the bow that supports the bag, a bow made U-form with a hook on the end of each side bar in position to engage with the hooks on the step-ladder stiles, and offsets on the side bars in position to rest on the tops of the ladder stiles, a second bow pivoted to the side bars first in position to shut down over the outside of the first, and a shelf pivoted to close inside of the first bow and be supported thereby, substantially as and for the purpose set forth. 3rd. In combination, a store truck, a step-ladder pivoted to the upper end of the truck stiles so that the lower ends may be thrown apart to complete the step-ladder, a bag support, hooks secured to the back edges of the ladder stiles, arms projecting out at right angles with the arms of the bow to engage with the hooks on the ladder stiles, and offsets on the arms of the bow to rest on the tops of the stiles to support the bag-holder, substantially as shown and described.

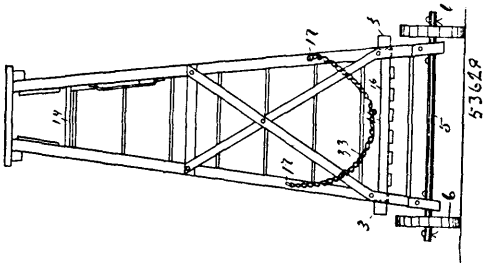
No. 53,627. Vehicle Wheel. (*Roue de voiture.*)



Charles L. Schwarz, Philadelphia, Pennsylvania, U.S.A., 1st October, 1896; 6 years. (Filed 12th September, 1696.)

Claim.—1st. A wheel hub, having the socket or aperture for the tenon of the spoke formed with a metallic wall provided with inwardly projecting teeth adapted to lock the spoke tenon against removal, in combination with a wooden spoke having its tenon driven into the said socket or aperture and receiving the teeth of the metal wall, to prevent its withdrawal. 2nd. The combination of a wheel hub, with a spoke fitted thereto, and a locking plate interposed between the tenon of the spoke and the wall of the socket in the hub, and in which said plate is provided with projecting teeth upon its two opposite faces pointing in opposite directions, so that the plate is locked to the hub and the spoke tenon is locked to the plate. 3rd. A locking plate for securing a spoke tenon to a hub, consisting of a flat plate having teeth projecting from the faces thereof and pointing in opposite directions, the said teeth on one face being inclined upward and on the other face inclined downward. 4th. A locking plate for securing a spoke tenon to a hub, consisting of a flat plate having teeth projecting from the faces thereof and pointing in opposite directions, the said teeth on one face being inclined upward, and at the other face inclined downward, and a shoulder formed at one end of said plate, adapted to receive the end of the spoke tenon. 5th. The combination of the wooden hub A, the spoke C having a tenon D, and locking plate E provided with upwardly-directed teeth F adapted to fit into the wall of the sockets in the hub, and downwardly directed teeth G adapted to fit into the face of the tenon of the spoke.

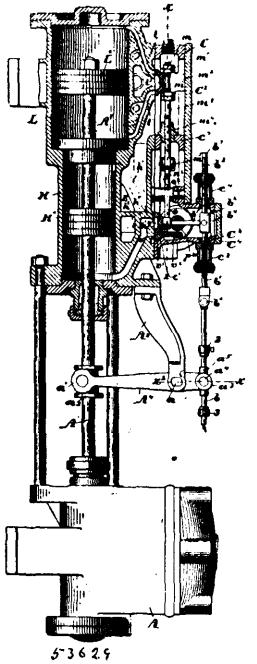
No. 53,628. Orchard Ladder. (*Echelle de vergers.*)



Harvey Bowman, Dayton, Ohio, U.S.A., 1st October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—1st. In a portable step ladder, the combination with the posts 2 and 17, the former having steps; horizontal bars to which said posts are attached, of handle bars detachably secured to the lower portion of said posts, and inclined braces detachably secured to said handle bars, and a shelf supported on said handle bars, as herein shown and described. 2nd. In a portable ladder, the combination with the posts 2 and 17, the latter provided with steps, and both having connections with horizontal bars at their upper ends, of horizontal handle bars detachable from said posts, angle plates secured to bars, and a shelf supported on said angle plates, as herein shown and described. 3rd. In a portable orchard step ladder, the combination with posts 2 and 17, and handle bars 3, of the inclined braces 1 having a hinge connection with the posts 2, the lower ends of said braces being adapted to slide in and out of a locking engagement with said handle bars, a shelf 14 hinged to the posts 17, a notched bar pivoted to said shelf, and a staple secured to one of said posts 17, with which said notched bar engages to support the shelf in a horizontal position, as herein shown and described. 4th. In a portable orchard step ladder, the combination with the posts 2 and 17, and the handle bars 3, the inclined braces 1 hinged to the posts 2, engaging flanges on the lower ends of said braces, to engage with slotted plates on the handle bars, as herein shown and described.

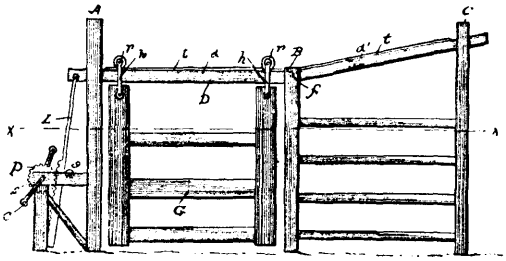
No. 53,629. Steam Pump. (*Pompe à vapeur.*)



Albert Francis Hall, Boston, Massachusetts, U.S.A., 2nd October, 1896; 6 years. (Filed 12th September, 1896.)

Claim.—1st. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust ports, a main valve in said steam chest, a reciprocable auxiliary valve piston to move said main valve, and an actuator operated from the main engine, directly engaging and having a sliding connection with and to rock said valve-piston, to thereby control its reciprocation, substantially as described. 2nd. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust posts, a main valve in said steam chest, a reciprocable auxiliary valve-piston reduced centrally to engage the main valve and thereby reciprocate it, and an actuator operated from the main engine, directly engaging and having a sliding connection with and to rock the said piston, to thereby control its reciprocation, substantially as described. 3rd. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust ports, a main valve in said steam chest, having a laterally extended arm, a reciprocable valve-piston having a reduced central portion to embrace the valve arm and cause said valve to be reciprocated with said valve-piston, and an actuator operated from the main engine, directly engaging and having a sliding connection with and to rock the valve-piston, to thereby control its reciprocation, substantially as described. 4th. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust posts, a main valve in said steam chest, a reciprocable auxiliary valve-piston, to move said valve, said valve-piston having a longitudinally slotted portion, an actuator to freely enter said slotted portion and having a sliding connection therewith, and means connected with the main engine to move the actuator to rock the valve-piston and thereby control its reciprocation, substantially as described. 5th. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust ports, the steam valve in said steam chest, a main vertical seat therefor, and an auxiliary seat below and forming an acute angle with the main seat, the valve having its lower edge bevelled to rest upon the auxiliary seat, a reciprocable valve-piston to move the said valve, and an actuator operated from the main engine, in direct engagement and having a sliding connection with and to rock the said valve-piston, to control its reciprocation, substantially as described. 6th. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust posts, an auxiliary reciprocable valve-piston, an actuator directly engaging and having a sliding connection with and to rock said valve-piston, to control its reciprocation, a slide rod having a yoke to which the actuator is pivoted, and a rocker arm to reciprocate the slide rod, the latter being rotable relatively to the rocker arm, said rocker being operated by the main engine, as and for the purpose described. 7th. In an apparatus of the class described, the main engine, including a cylinder, steam chest, and inlet and exhaust ports, an auxiliary reciprocable valve-piston, an actuator in direct engagement and having a sliding connection therewith to rock it, a slide rod to move the actuator, a rocker arm operated by the main engine, and connections between it and the slide rod, whereby the latter may be rotated without disconnection, substantially as described. 8th. In an apparatus of the class described, a main engine, including high and low pressure steam cylinders, a steam chest and an independent slide valve for each, an auxiliary reciprocable valve-piston to operate one of said valves, an actuator operated by said main engine, in direct engagement with and to rock and thereby control the reciprocation of said valve-piston, and connections between the high and low pressure valves, whereby one is operated by the other, substantially as described. 9th. In an apparatus of the class described, a main engine, including high and low pressure steam cylinders, and their steam chests, an independing valve for each, movable at right angles to each other, means to reciprocate one of said valves, and connections, including a bell crank, link, and lever, between said valves, whereby reciprocation is imparted from one to the other, substantially as described. 10th. In an apparatus of the class described, high and low pressure steam cylinders, steam chests therefor, and inlet and exhaust ports connecting said chests and cylinders, a valve for each cylinder, movable at right angles to each other, a reciprocable auxiliary valve-piston to move one of said valves, a bell crank in engagement with and rocked by said valve-piston, a valve rod connected to the other valve, a lever and a link connecting said valve rod and bell crank to reciprocate said second valve, and an actuator having a sliding connection with and to partially rotate said auxiliary valve-piston, to thereby control its reciprocation, substantially as described.

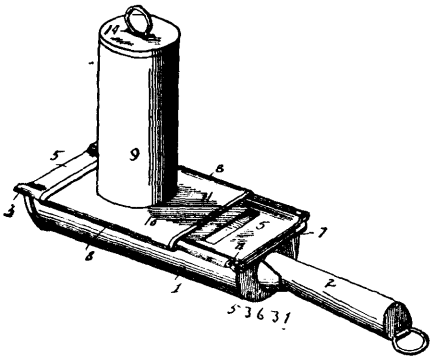
No. 53,630. Gate. (*Barrière.*)



Jacob Ashal Freese, Danville, Illinois, U.S.A., 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—In a gate-actuating mechanism, the combination with an angular bar D hinged or pivoted at its angle to a central post and the gate suspended from said bars by hangers that carry rollers, of a rack bar connected to and depending from the end of said tilting bar, a pinion properly mounted for engaging with said rack a guide roller for holding said rack and pinion in operative relation, and means for rotating said pinion, substantially as described.

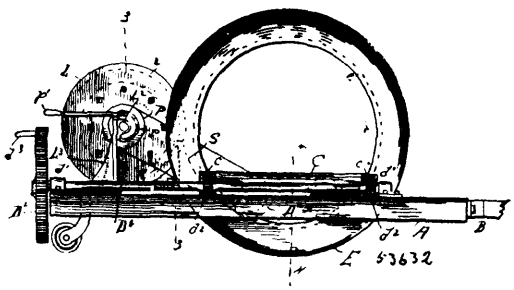
No. 53,631. Grater. (*Râpe.*)



John S. Sobey, Calumet, Michigan, U.S.A., 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—1st. In a grater, the combination of a trough provided at its side edges with outwardly-extending flanges and having inwardly-extending flanges forming ways, a removable grater plate arranged in the ways of the trough, and a casing slidingly mounted on the outwardly-extending flanges, substantially as described. 2nd. In a grater, the combination of a trough, a grater plate, a casing slidingly mounted on the trough and provided at its outer end with a keyhole slot, a spring-actuated follower, and a rod secured to the follower and extending through the keyhole slot and provided with a lug adapted to pass through the slot and to be turned transversely thereof to engage the exterior of the casing, whereby the follower is held retracted, substantially as described.

No. 53,632. Reaping Machine. (*Moissonneuse.*)

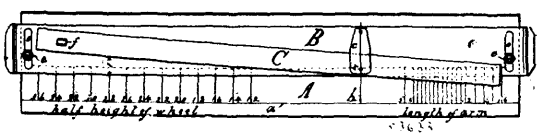


Benjamin F. Rich, Spanish Fort, Texas, U.S.A., 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—1st. In a reaper, the combination with a base having a recess, of grooved rollers spanning the recess, slides in which the rollers are mounted, horizontal shafts, means for simultaneously moving the shafts, pinions on the shafts, racks on the slides engaging the pinions, a ring driving wheel surrounding the rollers having interior flanges fitted in the grooves of the rollers, cutters, mechanism for actuating the same, a belt extending from the rollers to the actuating mechanism, and a belt connecting the rolls, substantially as described. 2nd. In a reaping machine, a series of pivotally-supported knives having finger projections, and a reciprocating cutter bar having independent movable notched plates with which the fingers engage, springs for normally preventing the independent movement of the notched plates, and means for driving the cutter bar, substantially as described.

No. 53,633. Axle Set Indicator.

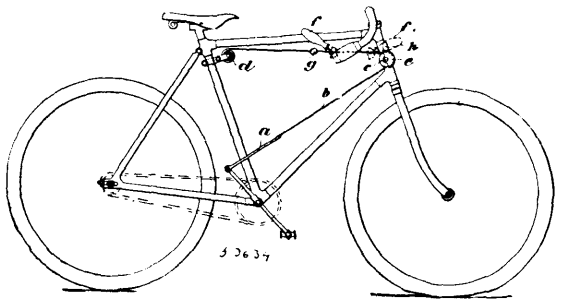
(*Indicateur pour adjuster les essieux.*)



Byard Dickie, Shubenacadie, Nova Scotia, Canada, 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—1st. An axle set indicator, having a graduated indicator plate carrying a sliding plate with an indicator bar pivoted on it, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the indicator plate A with the sliding plate B and the indicator bar C, substantially as and for the purpose hereinbefore set forth.

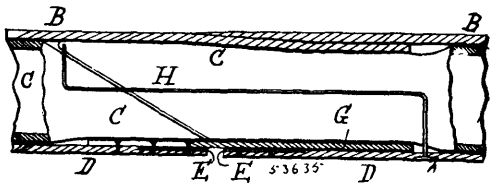
No. 53,634. Bicycle, Tricycle, etc. (*Bicycle, tricycle.*)



Bowne's Elland Worton, Hampton, England, 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—The combination in a bicycle or tricycle of a crank connected to the pedal spindle, a cord, wire or other pliable connection, a handle working in the manner described and a take-up spring (such as *d*, Fig. 1) the whole operating that the hands may be used for giving assistance in propelling the machine, substantially as herein described and illustrated in the accompanying drawing.

No. 53,635. Bicycle Tire. (*Bandage de bicycle.*)



John Conrad Lighthouse, Rochester, New York, U.S.A., 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

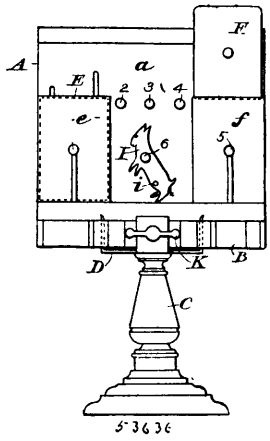
Claim.—1st. The combination of a hollow wheel rim, an external covering tube resting therein, an inflatible air tube resting in the covering tube, coupling pieces at the ends of the covering tube, and means for connecting the coupling pieces and drawing the same toward each other as and for the purpose specified. 2nd. The combination of the hollow wheel rim, the covering tube and air tube resting therein, a flexible binding strip provided with hooks uniting the edges of the covering tube, coupling pieces at the ends of the binding strip provided with lugs extending out laterally through the tube, and means uniting the lugs of said coupling pieces whereby the ends of the tube may be drawn toward each other as and for the purpose specified. 3rd. In a bicycle tire combination with the external open ended covering tube of coupling pieces, attached respectively to the opposite ends of the tube and provided with lugs extending laterally out through the tube, and screws passing through said lugs for clamping the parts together as specified. 4th. The combination of the open ended covering tube, a binding strip uniting the edges of the same, coupling pieces attached to the ends of the binding strips, screws connecting the coupling pieces together, and an extension to the binding strip at one end for the purpose of uniting the lapping edges of the lap portion of the tube as specified. 5th. The combination of the exterior covering tube, the binding strip for attaching the edges of the same, an extension to said binding strip for securing the edges of the lapping end of the tube, coupling pieces attached to the binding strip, that on one side being provided with studs which enter adjusting holes of the binding strip, and screws uniting the coupling pieces, as and for the purpose specified. 6th. The combination with the telescopic covering tube, disconnected air tube of the guard H, to which one end of the air tube is attached and to which it is projected into the opposite end of the covering tube in the act of telescoping the parts together as herein set forth. 7th. In a bicycle tire the combination with the exterior leather tube B and an inflatible tube C of the reinforcing strip B made of leather and extending but part way around as shown and described and for the purpose specified.

No. 53,636. Indoor Shooting Stand. (*Cible.*)

Otto Conrad Krause, Zwickan, Saxony, Germany, 2nd October, 1896; 6 years. (Filed 18th April, 1896.)

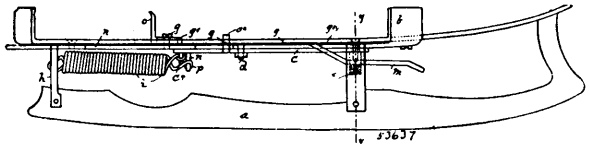
Claim.—1st. A game apparatus comprising a table, a target supported thereon consisting of a screen containing objects to be thrown up or displayed, a stand and strap upon which the said table and target may be adjusted, and a gun stand upon the table opposite the target, substantially as described. 2nd. A game apparatus comprising a table supporting a target fitted with a plurality of targets, each connected with mechanism for displaying various articles held behind a screen or screens upon striking a button connected with said devices, substantially as described. 3rd. A game apparatus comprising a target having a bellows, kept distended behind the screen of the target, and a target button connected with said bellows to release the same, and operate suitable devices when

the said target is struck, substantially as described. 4th. A game apparatus comprising a target having a spring actuated magazine



containing prize articles connected therewith, and a target button and trigger mechanism supported upon the said target, substantially as described. 5th. A target for game shooting apparatus comprising a screen, a vertically sliding spring actuated plate supported thereon, a plurality of articles supported upon said screen, levers pivoted thereto connected with said articles for displaying the same, springs connecting the screen and levers, and pins upon said sliding plate for pressing down the levers, substantially as described. 6th. A target for game shooting apparatus comprising a screen, a vertically sliding, spring actuated plate supported thereon, a plurality of articles adapted to be displayed supported upon said screen, levers pivoted to the screen and connected with said articles, and a rock shaft extending forward from the target and connected by a crank and bar with the sliding plate, substantially as described.

No. 53,637. Skate. (*Patin.*)

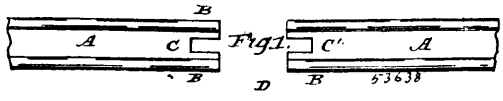


Jakob Stutz-Müller, Kempten, Zurich, Switzerland, 2nd October, 1896; 12 years. (Filed 1st August, 1896.)

Claim.—1st. A skate with sole and heel clips actuated by springs characterized by the arrangement that the spring *p* acting upon the heel clips through a slot C^1 of the draw-bar C connecting the sole clips to a spring *i* is stretched together with this spring *i* for the purpose of opening the skate, the pressing up of the heel clips however being actuated independently of the movement of the sole clips. 2nd. A skate as described under claim *l* in which by means of an adjusting bar K, engaging in the draw-bar C, of the sole clips and capable of being pressed down by the foot of the skater the stretched springs are released.

No. 53,638. Method of Connecting Railway Rails, etc.

(*Méthode de joindre les rails de chemin de fer, etc.*

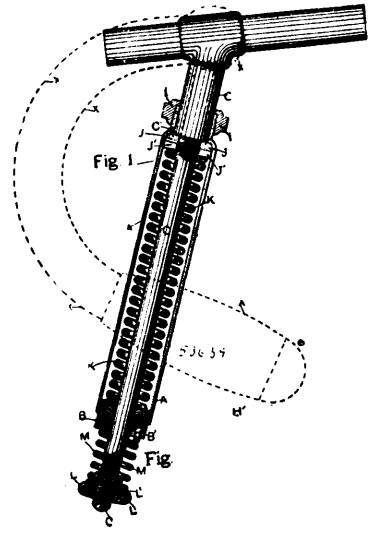


Thomas Abraham Bayliss, Birmingham, England, 2nd October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—1st. Constructing the rails for railways, tramways and such like by slotting or cutting out the meeting ends of the same in the webs or intermediate portions in a longitudinal direction preferably, substantially as described and shown. 2nd. Constructing the rails for railways, tramways and such like by slotting or cutting out the ends of the same in the webs in a longitudinal direction, in combination with the employment of an intermediate connecting plate or jointing piece formed of two side plates or pieces integral with a web or intermediate portion that takes into the slots in the rails the side plates lying parallel with and embracing each sides of the webs of the rails, substantially as described and shown. 3rd. In connection with railway and other rails, the use for securing the ends of same, of a jointing piece or connecting plate or plates formed of two side plates or pieces, the one integral with an intermediate portion or web, the other plate being grooved longitudinally to slide onto a dovetail or other section formed to correspond therewith upon the intermediate portion of the jointing piece, said jointing piece engaging the slots in the rail ends in manner set forth in the preceding claim and described and shown in Figs. 8 to 12 of the accompanying drawings. 4th. In rails for railways, tramways and such like forming the same by cutting out the ends, the one having a stud or other suitable connecting device thereon engaging a correspondingly-shaped longitudinal slot in the web of the contiguous rail end, thus producing an overlapping joint and firmly securing the two ends by interlocking the same, substantially as described and shown in the accompanying drawings. 5th. The formation and construction of the connecting plate or jointing piece for railway and other rails, substantially as described with reference to Figs. 16, 17 and 18 of the accompanying drawings. 6th. The method of connecting the ends of rails or girders such as used in the construction of buildings or in shipbuilding or other purposes, in manner set forth and described.

No. 53,639. Spring Seat, etc., for Bicycles.

(*Siège à ressort pour bicycles, etc.*)



Howard K. Brooks, Chicago, Illinois, U.S.A., 2nd October, 1896; 6 years. (Filed 31st July, 1896.)

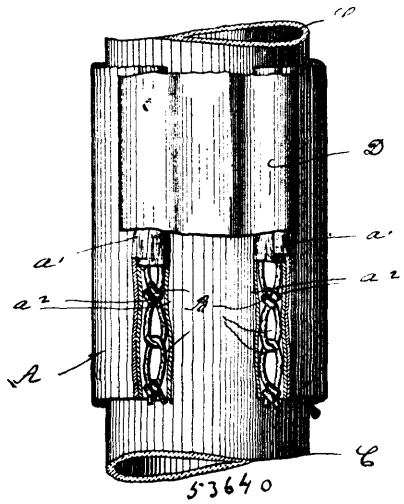
Claim.—1st. In a seat or handle bar post for bicycles, the combination comprising an outer tubular casing having an abutment at one end, a stem disposed and adapted to slide axially and longitudinally within the casing, a shoulder on the stem inside the casing, a helical spring bearing upon the said shoulder at one end and against the abutment at the other end, the said stem projecting at one end of the casing to receive the bicycle seat or handle bar, and at the other end to receive a nut between which and the abutment is a counter buffer spring, the whole serving as and for the purpose substantially as described. 2nd. In a seat or handle bar post for bicycles such as described, a means for mounting the stem within the tubular casing to slide longitudinally therein, but not to revolve, comprising channels F and G disposed longitudinally in the surface of the stem which serve in combination with integral splines formed by swaging in the sides of the end of the case to fit the said channels, substantially as shown and described, and means for compressing the end of the casing and closing the splines into the channels, for the purpose stated. 3rd. In a seat or handle bar post for bicycles, such as described, a means for mounting the non-revolvable stem within the tubular casing to slide longitudinally therein, comprising channels F and G disposed longitudinally in the surface of the stem, which serve in combination with integral splines formed by swaging in the sides of the end of the case to fit the said channels, and with longitudinal slits in the tapered screw threaded end of the case adapted to be closed by a nut to adjust the fit of the splines in the channels, substantially as described. 4th. In a seat or handle bar post such as described, the top of casing A swaged annularly inwardly, to form an integral shoulder adapted to receive the impact of buffer pad J, and to receive the stem C as described. 5th. In combination with a movable abutment B, and a movable nut L, the buffer spring M having the ends thereof yieldingly engaged therewith, whereby the said spring serves as a stop to yieldingly hold the nut and the abutment in some desired relative position, substantially as described.

No. 53,640. Pneumatic Tire. (*Bandage pneumatique.*)

Guy Huggins Gardner, Birmingham, England, 2nd October, 1896 6 years. (Filed 7th August, 1896.)

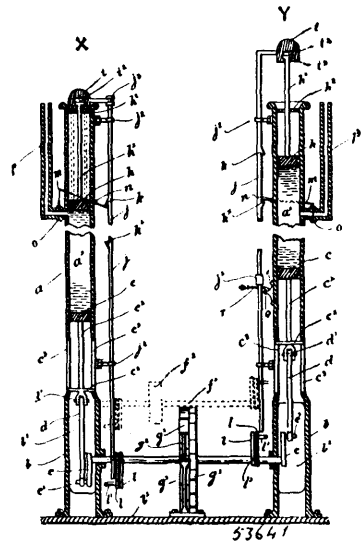
Claim.—1st. A tire having an outside cover in which the edge is perfectly flexible, so that the cover when off from the tire can be

folded perfectly flat, substantially as and for the purpose hereinbefore set forth. 2nd. A tire having an outside cover, the edges of



which are formed of chain, substantially and for the purpose hereinbefore set forth. 3rd. A tire having an outside cover, the edges of which are formed of weldless chain, substantially and for the purpose hereinbefore set forth.

No. 53,641. Liquid Motor. (*Moteur à fluide.*)



Duncan G. McBeen, Winnipeg, Manitoba, Canada, 2nd October, 1896; 6 years. (Filed 29th June, 1896.)

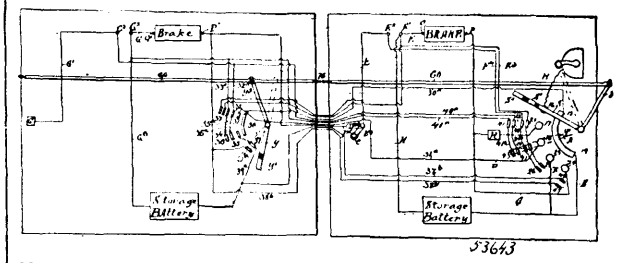
Claim.—1st. In a liquid motor, the combination of tubes or stand pipes, a, a, liquid chambers, a^1, a^1, pistons, c, c, plungers, h, h, plunger rods, h^1, h^1, guide plates, h^2, h^2, weights, i, i, in combination with shafts f and f^1, to be operated with or without the assistance of outside power for working the weights i, i, substantially as and for the purpose above set forth. 2nd. In a liquid motor, the vertical tubes or stand pipes, a, a, liquid chambers, a^1, a^1, bases, b, b, pistons, c, c, piston rods, c^1, c^1, cross-heads, c^2, c^2, vertical slots, c^3, c^3, crank rods, d, d, couplings, d^1, d^1, cranks, e, e, crank pins, e^1, e^1, shaft, f, fly wheel, g, ratchet-cogs, g^1, g^1, ratchet-bars, g^2, g^2, standards, g^3, g^3, plungers, h, h, plunger rods, h^1, h^1, guide plates, h^2, h^2, weights, i, i, chambers, i^2, i^2, nuts or heads, i^3, i^3, weight rods, j, j, movable joints j^1, or j^3, adjustable guides, j^2, j^2, cross-bars, j^5, j^5, braces, j^4, j^4, lever arms, l, l, roller pins, l^1, l^1, set screws, l^3, l^3, supply pipes, p, p, valves, o, o, levers, m, m, fulcra, n, n, projections, k, k, and k^1, k^1, lever, r, fulcrum, s^1, forked end, q, and swivel, s, with or without the shaft, f^1, and driving wheel or pulley, f^2, substantially as and for the purpose above set forth.

No. 53,642. Manufacture of Gas Incandescents.
(*Fabrication de gaz incandescent.*)

Oskar Knofler, Charlottenburg, Prussia, Germany, 2nd October, 1896; 6 years. (Filed 23rd May, 1896.)

Claim.—1st. The herein described method of producing gas incandescents, which consists in fixing the threads by water to which has been added a substance, such as an alkali, producing with the salts contained in the threads, an insoluble compound, and thereby at the same time strengthening the threads, substantially as described. 2nd. The herein described method of producing gas incandescents, which consists in mixing a solution cantaining collodion with appropriate substances to produce incandescent refractory bodies, and then fixing the product obtained by passing it through a liquid such as benzine, benzol or the like, which is a solvent for alcohol and ether, but will not dissolve the salts or substances which are to form the refractory mantle, substantially as described. 3rd. The herein described method of producing gas incandescents, which consists in mixing a solution containing collodion with appropriate substances to produce incandescent refractory bodies, and then fixing the product thus obtained in a liquid consisting of a solvent for alchol and ether, and a reducing agent for de-nitrating the product, substantially as described. 4th. In a process for manufacturing gas incandescents from a solution containing collodion mixed with suitable salts adapted to be converted into refractory oxides, the herein described process of de-nitrating a solid body obtained from the said mixture, which consists in treating the said product with an alkaline reducing agent such as sulphuretted ammonium, substantially as described.

No. 53,643. Car Brake. (*Frein de chars.*)

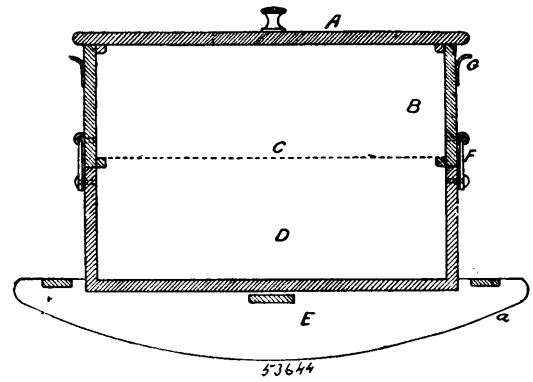


Charles James Hall, Quebec City, Quebec, Canada, 2nd October, 1896; 6 years. (Filed 23rd May, 1896.)

Claim.—1st. A street car carrying an electric motor, and a second car or trailer drawn by same, brake mechanism carried by each car, and controlling appliances whereby such brakes can be applied from either car, for the purpose set forth. 2nd. A street car having brake mechanism adapted to be operated by the usual trolley current, means for controlling same, and an auxiliary electrical supply for operating the brake mechanism when deprived of such trolley current, and controlling devices for such auxiliary supply, for the purpose set forth. 3rd. In combination with a street car, an electro-magnet carrying a friction block secured thereto and adapted to act upon the surface over which the car travels, a storage battery, a normally open circuit including said magnet and battery, a movable device carried by said car and projecting beyond the forward end of same, and a connection between said movable device and circuit whereby said circuit will be closed by the movement of said device, for the purpose set forth. 4th. In combination with a car, a brake adapted to act simultaneously upon the wheels of the car and the surface over which said car travels, and means for operating said brake, for the purpose set forth. 5th. In combination with a car, a brake adapted to act simultaneously upon the wheels of the car and the surface over which said car travels, and electrical means for operating said brake, for the purpose set forth. 6th. In combination with a car and the wheels thereof, a brake consisting of a yieldingly supported friction block having an electric magnet and one or more wedge blocks connected thereto, and a stationary armature mounted independent of said car, and an electric circuit including said magnet therein, with means for opening and closing said circuit, for the purpose set forth. 7th. In combination with a car and the wheels thereof, a brake consisting of a friction block and one or more wedge blocks, and means for actuating said friction block to act upon the surface over which said car travels, and one of said wedge blocks to simultaneously act upon one of said wheels, for the purpose set forth. 8th. In combination with a car, the wheels thereof and the rails upon which said wheels bear, a brake consisting of a friction block carried by said car yielding above one of said rails, a double bell-crank lever fulcrumed to the truck of the car and having two of its arms adapted to act upon said block and force same into contact with said rail, and the third arm thereof adapted to project above said truck frame, a lever fulcrumed to the platform of the car and a link connecting said third arm of the bell-crank lever to said lever. 9th. In combination with a car, the wheels thereof and the rails upon which said wheels bear, a brake consisting of a box having a friction block secured to the under side thereof, an electro-magnet located within said box, an electric circuit including said magnet therein, means far opening and closing said circuit, a pair of forwardly and rearwardly projecting bars connect-

ed at their adjacent ends to said box and each bar having a wedge block upon the free end thereof, a pair of spring hangers connected at their lower ends to said bars and at their upper ends to a bracket secured rigidly to the truck of said car. 10th. In combination with a car, the wheels thereof and the rails upon which said wheels bear, a brake consisting of a box having a friction block secured to the underside thereof, an electro-magnet located within said box, an electric circuit including said magnet therein, means for opening and closing said circuit, a pair of forwardly and rearwardly projecting bars connected at their adjacent ends to said box and each bar having a wedge block upon the free end thereof, a pair of spring hangers connected at their lower ends to said bars and at their upper ends to a bracket secured rigidly to the truck of said car. 11th. In combination with a car, the wheels thereof and the rails upon which said wheels bear, a brake consisting of a box having a friction block secured to the under side thereof, an electro-magnet located within said box, an electric circuit including said magnet therein, means for opening and closing said circuit, a pair of forwardly and rearwardly projecting bars connected at their adjacent ends to said box and each bar having a wedge block upon the free end thereof, a pair of spring hangers connected at their lower ends to said bars and at their upper ends to a bracket secured rigidly to the truck of said car, said spring hangers each consisting of two parts, one part having the lower end thereof forked and adapted to straddle the bar and be pivotally secured thereto, such part being bored longitudinally thereof and such boring having a shoulder formed therein against which one end of a helical spring bears, the other part is pivotally secured at the upper end thereof to said frame piece, a downwardly extending screw-threaded spindle formed in one with said other part and adapted to take into the boring in said first mentioned part and be encircled by said helical spring, an interiorly screw-threaded ring adapted to be screwed upon the lower end of said spindle and against which the other end of said helical spring bears. 12th. In combination with a street car, an electro-magnet carrying a friction block secured thereto and adapted to act upon the surface over which the car travels, a normally open electric circuit including said magnet, a movable device carried by said car and projecting beyond the forward end of same, and a connection between said movable device and circuit whereby said circuit will be closed by the movement of said device, for the purpose set forth. 13th. In combination with a car, the wheels thereof and the rails upon which said wheels bear, a brake consisting of a box having a friction block secured to the underside thereof, an electro-magnet located within said box, an electric circuit including said magnet therein, means for opening and closing said circuit, a pair of forwardly and rearwardly projecting bars connected at their adjacent ends to said box and each bar having a wedge block upon the free end thereof, a pair of spring hangers connected at their lower ends to said bars and at their upper ends to a bracket secured rigidly to the truck of said car, said spring hangers each consisting of two parts, one part having the lower end thereof forked and adapted to straddle the bar and be pivotally secured thereto, such part being bored longitudinally thereof and such boring having a shoulder formed therein against which one end of a helical spring bears, the other part is pivotally secured at the upper end thereof to said frame piece, a downwardly extending screw-threaded spindle formed in one with said other part and adapted to take into the boring in said first mentioned part and be encircled by said helical spring, an interiorly screw-threaded ring adapted to be screwed upon the lower end of said spindle and against which the other end of said helical spring bears, a double bell-crank-lever fulcrumed to the truck of the car and having two of its arms adapted to act upon said brake and the third arm thereof adapted to project above said truck frame, a lever fulcrumed to the platform of the car and a link connecting said third arm of the bell-crank-lever to said lever. 14th. In combination with a car, the wheels thereof and the rails upon which said wheels bear, a brake consisting of a box having a friction block secured to the underside thereof, an electro-magnet located within said box, an electric circuit including said magnet therein, a switch mounted upon the car, a pair of forwardly and rearwardly projecting bars connected at their adjacent ends to said box and each bar having a wedge block upon the free end thereof, a pair of spring hangers connected at their lower ends to said bars and at their upper ends to a bracket secured rigidly to the truck of said car, for the purpose set forth. 15th. In combination with a car, a brake consisting of a yieldingly supported friction block having an electro-magnet connected thereto, a stationary armature mounted independent of said car, a storage battery mounted on said car, a system of wires and a switch connecting the poles of said storage battery and including said magnet therein, a system of wires and a switch connecting the trolley current to said magnet and a second switch and thence to ground, and means for operating said switches, for the purpose set forth. 16th. In combination with a trolley car and a trailer, a brake for said trolley car consisting of a yieldingly supported friction block having an electro-magnet connected thereto, a stationary armature mounted independent of said trolley car, a storage battery mounted on said trolley car, a system of wires, and a switch connecting the poles of said storage battery and including said magnet therein, a system of wires and a switch connecting the trolley current to said magnet and to a second switch and thence to ground, a brake for said trailer car consisting of a yieldingly supported friction block having an electro-magnet connected thereto, a stationary armature mounted independent of said car, a second storage battery mounted upon said trailer, a system of wires and a switch connecting the poles of said second storage battery and including said magnet therein, a system of wires and a switch connecting the second switch of the trolley current with said magnet and a system of wires connecting said last-mentioned magnet to the ground and means for opening and closing said switches, for the purposes set forth. 17th. In combination with a trolley car and a trailer, a brake for said trolley car consisting of a yieldingly supported friction block having an electro-magnet connected thereto, a stationary armature mounted independent of said trolley car, a storage battery mounted on said trolley car, a system of wires and a switch connecting the poles of said storage battery and including said magnet therein, a system of wires and a switch connecting the trolley current to said magnet and to a second switch, and thence to ground, a brake for said trailer car consisting of a yielding supported friction block having an electro-magnet connected thereto a stationary armature mounted independent of said car, a second storage battery mounted upon said trailer, a system of wires and a switch connecting the poles of said second storage battery and including said magnet therein, a system of wires and a switch connecting the second switch of the trolley current with said magnet and a system of wires connecting said last-mentioned magnet to the ground, a sliding bar hung beneath the trolley car and having its forward end operatively connected to said switches on said trolley car, the rear end of said bar being downwardly off-set and having a lever fulcrumed thereon, one end of said lever being curved upwardly, a coiled spring located between the other end of said lever and the sliding bar, a second sliding bar operatively connected to the switches upon and hung beneath the trailer car, the forward end of said sliding bar being downwardly off-set and having a lever fulcrumed thereon, one end of said lever being curved upwardly, a coiled spring located between the other end of said lever and the sliding bar, a link connection between the upwardly curved portions of said first and last-mentioned levers, as and for the purpose set forth.

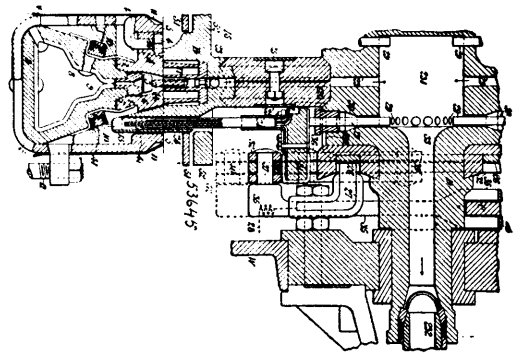
No. 53,644. Ash Sifter. (*Crible à cendre.*)



Major Creedy, Brantford, Ontario, Canada, 2nd October, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—An ash sifter comprising a rocking frame E; ash pit D removably secured to said rocking frame; receptacle B, having a screen C on its base and a lid A on its top, said receptacle having handles G, and being removably attached to the ash pit by hooks F, all formed, arranged and combined as and for the purpose hereinbefore set forth.

No. 53,645. Railway. (*Chemin de fer.*)

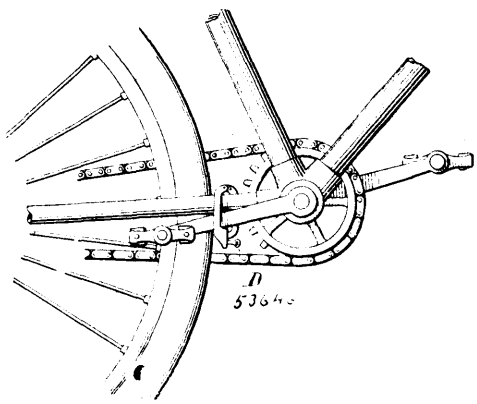


Robert Cooke Sayer, Clyde Road, Redland, Bristol, England, 2nd October, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. The means for conveying power from a stationary generator to a car running on rails, consisting of power conveyors on the rail, radial connectors on the wheel adapted as the wheel

rotates on the rail to connect with the power conveyors on the rail, teeth on the rail head and corresponding teeth on the wheel to keep the wheel in position laterally and circumferentially. 2nd. The means for conveying power from a stationary generator to a car consisting of a hollow air tight rail, teeth on the rail head, car wheels running on the said rails, teeth on the car wheels corresponding to the teeth on the rail head to keep the wheel in position laterally and circumferentially so as to register with the valves, radial tubes on the wheel adapted to come over the rail valves, automatic valves in the said tubes, a packing or cushion carried by the wheel and adapted to make a tight joint between the rail head and the radial tubes, and projections on the wheels to open the rail valves. 3rd. The means for conveying power from a stationary generator to a car, consisting of a hollow air tight rail, divided electric conductors at different heights on the rail, car wheels running on the rail, radial air tubes in the wheels adapted to receive the air from the hollow rail, sliding radials on the wheel adapted to be forced out by the air pressure, a means for adjusting the distance the radials are forced out as the wheel rotates, brushes carried by the rails and adapted to make contact when forced out with the conductors on the rail, teeth on the rails and corresponding teeth on the wheels to keep the wheels in position laterally and circumferentially.

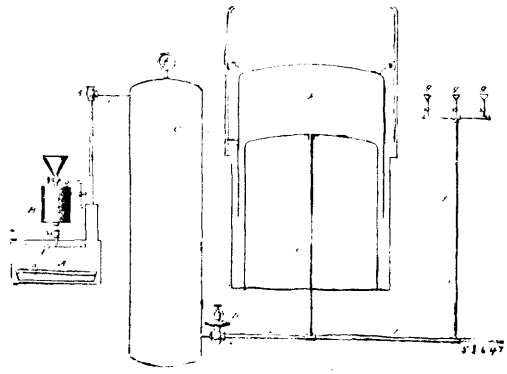
No. 53,646. Bicycle Lock. (*Serrure de bicycle.*)



Charles E. Wickliffe, Washington, Columbia, U.S.A., 2nd October, 1896; 6 years. (Filed 20th May, 1896.)

Claim.—1st. A bicycle lock formed of two parts hinged together, one part carrying a bolt and adapted to receive the end of the other part which is locked by said bolt, substantially as described. 2nd. A bicycle lock, comprising two substantially like parts hinged together to constitute a link, and provided at their ends opposite the hinge with a lock, substantially as described. 3rd. A bicycle lock, comprising two parts having curved ends hinged together at one end to form a link, and the other ends adapted to inter engage, and one provided with a bolt and a key hole to receive the key, substantially as described. 4th. A bicycle lock of substantially loop form having provision for longitudinal extension, substantially as described. 5th. A bicycle lock of substantially loop form having its parallel portions adjustable in length, substantially as described. 6th. A bicycle lock of substantially loop form having its parellel portions adjustable in length and provided with means for holding the same in their adjusted position, substantially as described. 7th. A bicycle lock of substantially loop form having its parallel portions adjustable in length and provided with means for securing them in their adjusted position, such means being permanently connected together and held against separation from said parellel portions, substantially as described. 8th. A lock of substantially loop form provided with a pivot at one end and its longitudinal portions overlapping each other and provided with longitudinal slots, and means passed through said slots for holding the parts in their adjusted position, substantially as described. 9th. A lock of substantially loop form having a pivot at one end and its parallel portions overlapping each other and provided with longitudinal slots, bolts passed through said slots and held against turning therein, and means upon the ends of said bolts held against displacement and adapted to hold the parts in their adjusted position, substantially as described. 10th. An extensible bicycle lock of substantially loop form having a pivot at one end, substantially as described. 11th. A bicycle lock of substantially loop form having its parts pivotally united at one end, and the parallel portions formed with elongated slots in their halved out portions, said halved out portions being oppositely disposed upon opposite sides of the lock, bolts passed through the slots thereof and having rectangular portions to prevent their turning in the slots, and nuts on the ends of said bolts and having recesses into which the ends of the bolts are headed, substantially as described.

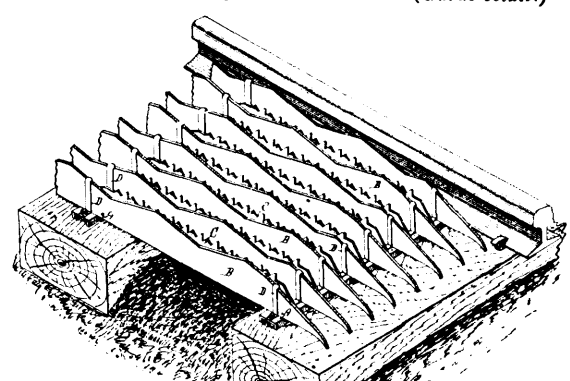
No. 53,647. Producing and Utilizing Illuminating Gas. (*Production et utilisation du gaz d'éclairage.*)



Thomas Leopold Willson, New York, State of New York, U.S.A., 3rd October, 1896; 6 years. (Filed 18th June, 1896.)

Claim.—1st. The process of producing an illuminating flame of high luminosity, which consists in producing acetylene gas, collecting it in a suitable receptacle, subjecting it therein to a pressure approximating to but above atmospheric pressure, and burning the same without any substantial pre-admixture of oxygen in a burner under substantially the conditions hereinbefore specified so as to produce a smokeless flame. 2nd. The process of producing an illuminating flame of high luminosity, which consists in producing acetylene gas, collecting the resulting gas and allowing it to expand into a suitable receptacle to a pressure approximating to but above atmospheric pressure, and burning the same in a burner under such conditions as to produce a smokeless flame, substantially as described. 3rd. The process of producing an illuminating flame of high luminosity, which consists in producing acetylene gas from calcium carbide and water, collecting the resulting gas in a receptacle under its own pressure of generation and allowing it to expand into a second suitable receptacle to a pressure approximating to but above atmospheric pressure, and burning the same in a burner under such conditions as to produce a smokeless flame, substantially as described.

No. 53,648. Railway Stock Guard. (*Garde bétail.*)

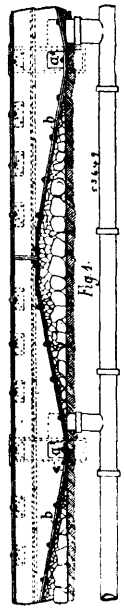


Eugene Cook, Kalamazoo, Michigan, U.S.A., 1896; 6 years. (Filed 28th May, 1896.)

Claim.—1st. In a railway stock guard, the combination of thin, vertical, main guard rails, all having angular depressions and projections broad in proportion to their height on their upper edges, the projections of each guard rail being opposite the depressions of the adjacent rails so that the footing shall be thoroughly uneven, in combination with suitable means of supporting the guard rails, substantially as described. 2nd. In a railway stock guard, thin, vertical, main guard rails in series, each having broad, angular depressions and projections, the depressions upon one rail being opposite the projections of the adjacent rail, so as to make the footing thoroughly uneven, for the purpose specified. 3rd. A railway stock guard, composed of thin, vertical, main guard rails placed side by side, the tops of the rails being formed into broad, angular depressions and projections alternating with each other both in the longitudinal and lateral direction of the railroad track to make the footing uneven, for the purpose specified. 4th. In a railway stock guard, the combination of a transverse support A, thin, vertical, main guard rails B, fasteners D similar to staples looped over said guard rails with lateral projections at the bottom

and each side of the guard rails, bars or clips E, and the bolts F through said clips and transverse supports A to clamp them together and support the guard rails and brace them in position, substantially as described. 5th. In a metal guard, the combination of the transverse support A, thin, vertical, main guard rails B, fasteners D looped over said guard rails with laterally projecting parts at the bottom projecting to each side of said guard rails, and suitable means of attaching the said laterally projecting parts to the transverse support A, substantially as described. 6th. In a railway stock guard, the combination with the guard rail, of a fastener D adapted to engage the said guard rail and having lateral, angular projecting portions at each side of said guard rails, and means of attaching said lateral portions of the fasteners to the transverse support so that the guard rail shall be braced from both sides by the lateral angular portions, for the purpose specified. 7th. In a railway stock guard, the combination of guard rails with horizontal projecting portions at each side of said guard rails, and suitable means of attaching said horizontal portions to a transverse support, for the purpose specified. 8th. In a railway stock guard, the combination with the adjacent guard rails, of fasteners D adapted to engage said guard rails, the brace or clip E between the said guard rails adapted to crowd said fasteners tight against the guard rails and engage them, and suitable means of attaching said clip or brace to the transverse support to hold and brace the fasteners of the guard rails in position, for the purpose specified. 9th. In a railway stock yard, the combination with the adjacent guard rails, of fasteners D adapted to engage the said guard rails, a brace or clip E between the said guard rails adapted to crowd said fasteners, for the purpose specified. 10th. In a railway stock guard, the combination with the adjacent guard rails, of fasteners over said guard rails, and bars E adapted to engage the fasteners, and a bolt F to clamp said bars to the transverse support, for the purpose specified. 11th. In a railway stock guard. the combination of the transverse beams A, longitudinal, thin, vertical guard rails B sloping downwardly at their outer ends with the points thereof curved downwardly to come in close proximity to the tie of the railroad track to prevent entangling the guard with dangling break beams from a passing train, as specified. 12th. In a stock guard, the combination of main, parallel guard rails B B, and auxiliary shorter guard rails C serrated at their top and supported between said main guard rails a little beneath their upper edge to insure a guarding against small animals, as specified. 13th. The combination of the main, thin, vertical, parallel guard rails B B, with broad, angular projections and depressions on their upper edges alternating with each other, and shorter auxiliary guard rails toothed on their upper edges, supported below the tops of said main guard to assist in guarding against the smaller animals, as specified. 14th. In a railway stock guard, the combination of the transverse supports A, longitudinal rails B, with staple-like fasteners D over said longitudinal rails, a clip or brace piece E to engage lateral projections on the staple portions D, bolts F projecting through transverse beams A, and the clip-piece E, auxiliary guard rails C, with the lower edge of the same at right angles to be engaged by said bolt F, and held between the guard rails, as specified.

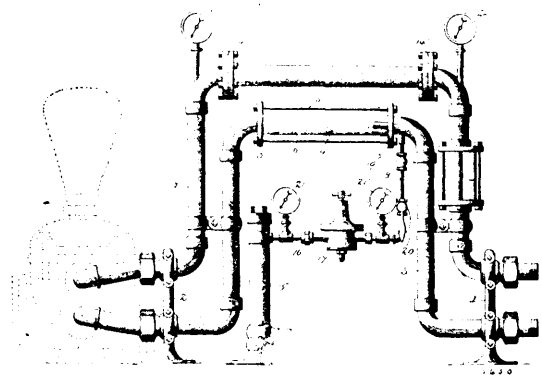
No. 53,649. Electric Railway. (*Chemin de fer électrique.*)



Alfred Philippi, Essen, Rhenish Prussia, Germany, 3rd October, 1896; 6 years. (Filed 2nd December, 1895.)

Claim.—A conduit for electric road with underground current comprising an outlet pipe K, for the water, a conduit A, an inclined bottom C, independent from the inclination of the road itself and having a steep gradient to drain the water, and an opening to the pipe K from the drain *b*, substantially as described.

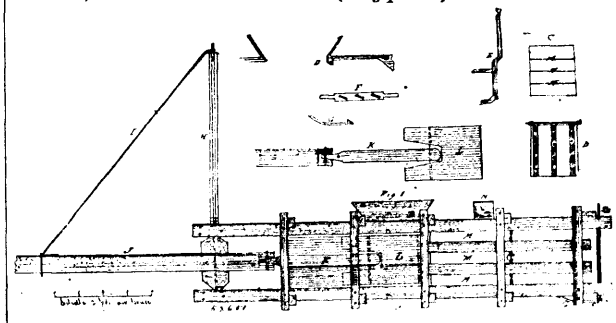
No. 53,650. Apparatus for Carborating Liquids.
(*Appareil à carborater les liquides.*)



Thomas Benjamin Booth, Boston, Massachusetts, U.S.A., 3rd October, 1896; 6 years. (Filed 8th August, 1896.)

Claim.—An apparatus for charging liquids with gaeses, comprising a suction pipe, a charging chamber interposed in said pipe, a gas charging pipe opening in the charging chamber, a pump, a discharge pipe leading from the pump, a mixing chamber interposed in the discharge pipe, comprising a tube, a plurality of perforated disks therein, annular washers separating the disks, and an adjustable threaded plug to clamp the disks and washers in position.

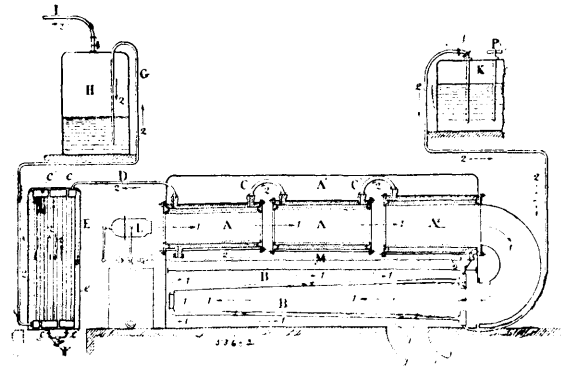
No. 53,651. Presse à foin. (*Hay press.*)



J. Cléophas Joncas, Saint-Jérôme de Matane, Québec, Canada, 3 octobre 1896; 6 ans. (Déposé, 3 juillet 1896.)

Résumé.—1° La combinaison de la porte B, avec le levier E, ainsi que la traverse F, et le ressort G, tel que décrit. 2° La combinaison du poteau H, avec le fil de fer I, ainsi que le timon J, le bras K, et le foulon L, tel que décrit et pour les fins indiquées.

No. 53,652. Apparatus for Treating Liquids by Means of Heat. (*Appareil pour le traitement des liquides au moyen de la chaleur.*)

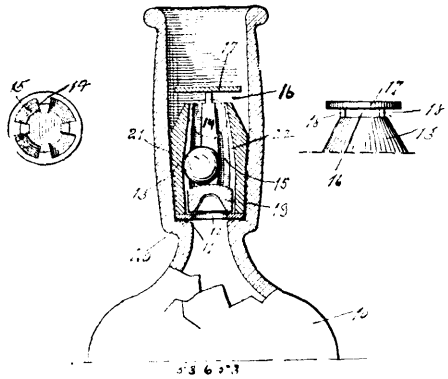


La Compagnie Internationale des Procédés, Adolphe Seigle, assignee of Adolphe Seigle, Paris, France, 3rd October, 1896; 6 years. (Filed 17th March, 1896.)

Claim.—An apparatus consisting of a series of shells forming a combustion flue serving as a heater, these shells or elements being double walled and having between them partitions arranged in any

suitable manner in order to form channels in which the liquids to be treated circulate, the said channels being connected by tubes or passages causing each shell to communicate with the next, all substantially as described and represented in the annexed drawings.

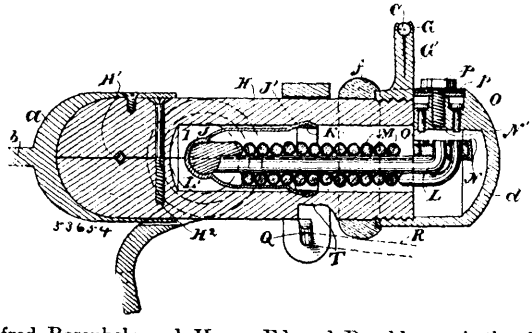
No. 53,653. Bottle. (*Bouteille.*)



Nathan Schwab and Garson J. Newwitter, both of New York, State of New York, assignee of Eugene M. Engelman, Detroit, Michigan, all in the U.S.A., 3rd October, 1896; 6 years. (Filed 31st July, 1896.)

Claim.—1st. The combination with the bottle neck, of the plug fastened therein, the plug being open at each end and having a reduced or inclined top portion, and a longitudinal bore adapted to contain a valve with internal side channels extending the full length of the bore, the said bore being tapered from a point near the centre to the top of the plug, and being straight in its lower part, substantially as described. 2nd. The combination with the plug shaped to fit a bottle neck and with a longitudinal bore extending completely through it endwise and having a reduced top portion, the plug being adapted to contain a valve, of the frangible top or shield formed integral with the plug and supported slightly above the bore, the edges of the shield projecting outward beyond the sides of the bore, substantially as described. 3rd. The combination with the bottle, of the plug open at each end, contained in the bottle neck and provided with an external reduced top, a longitudinal bore tapering from a point near the centre to the top, side channels extending the full length of the plug in the walls of the bore, a seat in the bottom of the plug, a frangible shield held slightly above the top and extending across the bore, a valve fitting closely in the bottom part of the plug, and a ball riding on the valve and adapted to fit in the tapering top, substantially as described. 4th. The combination with the bottle having a shoulder in its neck, of the washer on the shoulder forming a valve seat, the hollow plug open at each end, held in the neck above the washer and provided with a longitudinal bore having side channels in the walls thereof extending the full length of the plug, said bore being tapered from a point near the centre to the top and straight in its lower part, a frangible shield held slightly above the top and extending across the bore, a valve fitting closely in the lower part of the plug, and a ball riding on the valve, substantially as described.

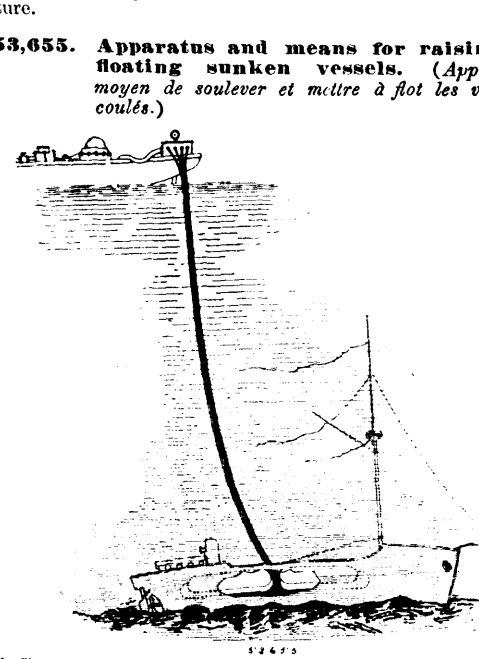
No. 53,654. Switch for Underground Electric Railway. (*Aiguille pour chemins de fer électrique souterrain.*)



Alfred Rosenholz and Henry Edward Poenhlman, both of San Francisco, California, U.S.A., 3rd October, 1896; 6 years. (Filed 10th December, 1895.)

Claim.—1st. A distributing switch for electric conduits consisting of a stationary core projecting from the line of the main conductor, a sealed insulated casing inclosing the core and movable with relation thereto about the main conductor, a trolley wire supported from the movable end of the casing and connected with a contact plate adjacent to the free end of the core, movable pins fitted within said contact plate, with their lower ends projecting and forming contact with the core plate when the casing is depressed. 2nd. A distributing switch for electric conduits consisting of a stationary core or conductor fixed near the main conductor, a sealed insulating casing turnable about supporting journals and inclosing the core, and a continuous flexible insulating jacket surrounding the conductor, with its ends extending into the insulating material in which the conductor is imbedded and having its central portion continued so as to surround the core and form a joint within the casing. 3rd. A distributing switch for electric conduits, consisting of a stationary core or conductor projecting from the main conductor, a sealed insulating casing fulcrumed and turnable in journal-boxes and inclosing the core, a trolley wire composed of independent sections, each section being supported from the movable ends of the switch casings by standards extending thereto, and a device for holding the adjacent ends of the trolley wire so as to allow the passage of the trolley and to prevent electrical contact, consisting of sleeves or clamps in which said ends are secured, and an insulating block and attachments by which said sleeves are secured to the block. 4th. A distributing switch for electric conduits consisting of stationary core fixed at one side of and connected with the main conductor, a sealed insulating casing fulcrumed and turnable in journals between the main conductor and the core, said casing being made in halves adapted to fit together having packing fitting in grooves between the meeting edges of the halves, and caps fitting over the ends serving to clamp the sections together, and contact plates within the casing whereby electrical communication is effected between the core and an exterior conductor carried upon the casing. 5th. A distributing switch for electric conduits, consisting of a stationary core or conductor removably connected with the main conductor, a sealed insulating casing fulcrumed and turnable about the extension of the core and inclosing the core, a trolley wire supported from the movable end of the casing and connecting with the contact plate adjacent to the free end of the core and movable with the casing, a locking arm whereby the tilting of the casing is prevented and a float connected with said locking arm adapted to throw it into engagement to lock the casing whenever the float is raised by a body of water around it. 6th. A distributing switch for electric conduits, consisting of a stationary core or conductor projecting from the main conductor, a sealed casing therefor fulcrumed and turnable about the main conductor, journals or bearings, upon which the casing is movable, a flexible insulating sheath or jacket inclosing the conductor and core and an exterior filling or packing surrounding the sheath. 7th. A distributing switch for electric conduits, consisting of a stationary conductor projecting from the main conductor, a sealed casing therefor, fulcrumed and turnable in journals or bearings about the main conductor, a flexible insulating sheath or jacket surrounding the junction of the two conductors, and a ring and groove joint at the termination of the sheath within the casing. 8th. In a distributing switch for electric conduits, a stationary branch conductor, inclosing casing and connected operative parts, in combination with a section of the main conductor, and journals and inclosing sheath forming a joint between the branch conductor, its casing and the main conductor in an independent structure.

No. 53,655. Apparatus and means for raising and floating sunken vessels. (*Appareil et moyen de soulever et mettre à flot les vaisseaux coulés.*)

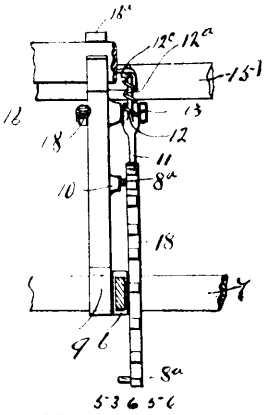


Joseph Grant, Andrew J. Schultz and Amos Curd, all of Detroit, Michigan, U.S.A., 3rd October, 1896; 6 years. (Filed 27th July, 1896.)

Claim.—1st. A tightly woven canvas bag, provided with a globe connection, having a screw-threaded shank to receive the hose, sub

stantially as shown and described. 2nd. An apparatus for raising and floating sunken vessels, provided with tightly woven canvas bags, adapted to be placed in the hold of a vessel, said bags being connected with an air supply to expand the same, substantially as shown and described.

No. 53,656. Seeder. (*Semoir.*)

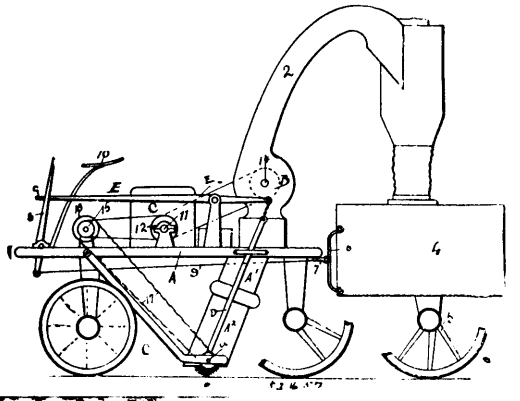


The firm of Matthew Moody & Sons, assignee of Thomas John Hamlet, Terrebonne, Quebec, Canada, 3rd October, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a seeder or the like and in combination with the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, means for connecting and disconnecting said lever and shaft and means for detachably retaining the shaft in any position to which it may be set for the purpose set forth. 2nd. In a seeder or the like, and in combination with the frame and the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, means for connecting and disconnecting said lever and shaft and means for retaining said shaft in any position to which it may be set, for the purpose set forth. 3rd. In a seeder or the like and in combination with the frame and the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, a segment-gear carried rigidly therein in close proximity to said lever, a detachable operative connection between said lever and segment-gear, and means for detachably retaining the shaft in any position in which it may be set for the purposes set forth. 4th. In a seeder or the like and in combination with the frame and the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, a segment-gear carried rigidly thereon in close proximity to said lever, a detachable operative connection between said lever and segment-gear, and a detachable connection between said segment-gear and the frame of the machine, for the purpose set forth. 5th. In a seeder or the like, and in combination with the frame and the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, a segment-gear carried rigidly thereon in close proximity to said lever, a bolt carried by said lever and adjustable longitudinally thereof into and out of engagement with said segment-gear, a detachable connection between said segment-gear and the frame of the machine, and means for adjusting said bolt, for the purpose set forth. 6th. In a seeder or the like and in combination with the frame and the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, a segment-gear carried rigidly thereon in close proximity to said lever, a bolt carried by said lever and adjustable longitudinally thereof into and out of engagement with said segment-gear, a pawl carried by said frame and adapted to engage the teeth of the segment-gear and be disengaged therefrom, and means for adjusting said bolt, for the purpose set forth. 7th. In a seeder or the like and in combination with the frame and the teeth raising and lowering shaft thereof, a lever mounted loosely upon said shaft, a segment-gear carried rigidly thereon in close proximity to said lever, a bolt carried by said lever and adjustable longitudinally thereof into and out of engagement with said segment-gear, a spring operated pawl pivotally carried by said frame and adapted to engage the teeth of the segment-gear and be disengaged therefrom, and means for adjusting said bolt, for the purpose set forth. 8th. An actuating shaft carried in a suitable frame and having a lever mounted loosely thereon, a segment-gear mounted rigidly thereon, a detachable operative connection between said lever and segment-gear, and detachable means for retaining said segment-gear, for the purpose set forth. 9th. An actuating shaft carried in a suitable frame and having a lever mounted loosely thereon, a segment-gear mounted rigidly thereon, a detachable operative connection between said lever and segment-gear, and a suitably mounted pawl adapted to engage and be disengaged from said segment-gear, for the purpose set forth. 10th. An actuating shaft carried in a suitable frame and having a lever mounted loosely thereon, a segment-gear mounted rigidly thereon, a spring bolt carried by said lever and adjustable longitudinally thereof into and out of engagement with said segment-gear, and detachable means for retaining said segment-gear, and means for adjusting said bolt, for the purpose set forth.

No. 53,657. Street Sweeping Machine.

(*Balayeuse de rue.*)

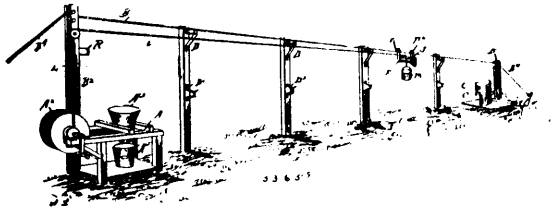


Roland D. Overholt, assignee of Henry Sewell Moody and Fred Randall Smith, all of Omaha, Nebraska, U.S.A., 3rd August, 1896; 6 years. (Filed 31st October, 1894.)

Claim.—1st. In a street sweeper, the combination, with a carriage and platform, of a flaring mouthed fan spout below said platform, a fan mounted above said spout, a brush hood below and communicating and telescoping within said spout, a brush, the projecting shaft of which projects beyond said hood, supporting bars pivoted to the platform, the lower ends being provided with bearings adapted to hold the broom shaft, rods loosely working upon said broom shaft, and held by means of guide straps, operating levers connected to said rods for raising and lowering said brush hood, and a motor for operating said brush and fan, all arranged substantially as and for the purpose set forth. 2nd. In a street sweeper, the combination, with a carriage and supporting frame, of a fan spout below said frame, a fan above said frame communicating with said spout, a brush hood telescoping with in said fan spout, a brush within said hood the shaft of which projects beyond said hood, a sprocket upon one end of said shaft, bars pivoted to said supporting frame, the lower ends being adapted to contain the projecting shaft ends, rods loosely working upon said broom shaft, levers for raising and lowering said rods, an electric motor in sprocket and chain connection with said broom and fan, and a dust collector connected to said fan, all arranged to operate substantially as and for the purpose set forth. 3rd. In a street sweeper, a cart detacher, comprising two sets of supporting eyes secured to the frame of the sweeper, a bar having one end recurved horizontally reciprocating within said supporting eyes, a bell crank secured to said frame, one end being secured to said rod, the other being attached to a connection rod, and a lever for operating said bar, so as to secure or release the brackets of the dirt cart adapted to be attached to said sweeper, all substantially as and for the purpose set forth.

No. 53,658. Water Elevator and Carrier.

(*Appareil pour puiser l'eau.*)

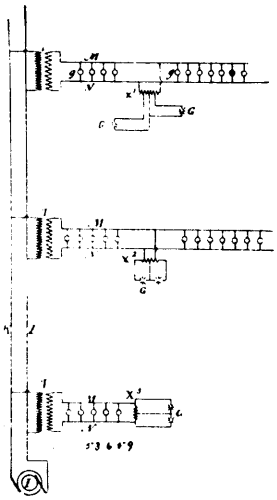


John W. Eckerd, Drakesville, and Samuel G. W. Stokes, Bloomfield, both of Iowa, U.S.A., 3rd October, 1896; 6 years. (Filed 17th August, 1896.)

Claim.—1st. A water elevator and carrier, comprising a line of fixed posts, a cable supported upon the tops of the posts, a bucket carrier having pulleys to travel on the cable, a windlass at one end of the line of posts, a wire or rope fixed to the windlass and extended over a pulley on the bucket carrier, a bucket on the free end of the rope, trip mechanism for detachably fastening the rope and bucket to the bucket carrier, a well curb having wings to direct the bucket and mechanism for detachably connecting the bucket carrier to one end post, all arranged and combined to operate in the manner set forth for the purposes stated. 2nd. In a water elevator and carrier, a bucket carrier comprising a frame composed of two straight and parallel bars at its bottom, two uprights fixed to the parallel bars, two straight bars fixed to the central portions of the uprights, a pulley at the top of each upright, a spring-actuated rod slidingly connected with the bottom of the frame, a catch device fixed to the rod, a detent pivoted to the frame to co-act with the said catch device on the rod to fasten a bucket and rope to the frame, a latch having an opening in the end for the passage of a rope pivoted to the frame to detachably fasten the frame to the post, a lever pivoted

to the frame and connected with the sliding rod by means of a link, and a pulley above the bucket-fastening devices to support a rope, all arranged and combined to operate in the manner set forth for the purposes stated. 3rd. In a water elevator and carrier, a well curb having wings at its top portion extending outward, substantially as shown and described for the purposes stated. 4th. In a water elevator and carrier, the combination of the hook M^2 having a hook at one end and a cone M^3 at its tubular end and transverse pin holes at its central portion, a rope or cable fastened in said tubular end and a bucket carrier having two parallel bars at its base, a detent O^4 fixed between said bars and a catch O^2 slidingly connected with the said bars and means for actuating the said catch, in the manner set forth for the purposes stated. 5th. An apparatus for elevating water from a well and conveying and emptying a bucket, comprising a line of fixed posts, a cable fixed to the end posts and supported on brackets fixed to the intermediate posts, means for stretching the cable, a bucket carrier having pulleys adapted to travel on the cable and automatic mechanism for detachably fastening the carrier to a catch device on one of the end posts and automatic mechanism for detachably fastening the carrier to a catch device on one of the end posts and automatic mechanism for detachably fastening the bucket to the carrier, a curb having wings to direct the bucket into the well, a windlass at one of the end posts, a rope fixed to the windlass and extended over a pulley on one of the end posts and also over a pulley on the bucket carrier, a bucket having a valve in its bottom connected with the free end of the rope, and a funnel having a pin projecting upward to engage the valve in the bucket fixed to a support near the windlass, all arranged and combined to operate in the manner set forth.

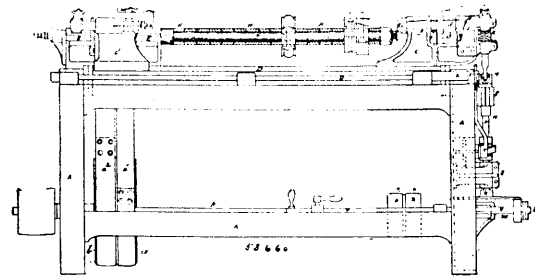
No. 53,659. System of Distribution of Electric Energy. (*Système de distribution de force électrique.*)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 3rd October, 1896; 6 years. (Filed 5th August, 1896.)

Claim.—1st. A compensator for an alternating current distribution system, adapted to subdivide the potential of the delivered current, consisting of a coil, an impressing circuit connected thereto, and impressed circuits fed therefrom, the connections from the impressed circuits overlapping each other, as herein described. 2nd. The method of regulating the potential of an alternating current, which consists in connecting the impressed circuit or circuits to points in a coil embracing between them a fraction of its length, and attaching the impressing circuit connections to the coil at various relative distances from the impressed circuit connections and from the ends of the coil, to determine the potential of the current delivered to the impressed circuits, as set out herein. 3rd. In a system of distribution of electric energy, a generator, lines leading therefrom, translating devices fed in parallel from such lines, and a compensating coil included between the lines having sets of connections therefrom to other translating devices, such connections in each set embracing parts of the coil less than its entire length, and the relative distances of the connections of the impressing circuit and the impressed circuits from the ends of the coil being fixed so as to determine the potential upon the impressed circuits suitable for the translating devices employed, substantially as herein set out. 4th. In a compensator for an alternating current circuit, a coil connected between the leads of the impressing circuit, and two or more coils also connected in such impressing circuit and in the impressed circuit or circuits, and acting to vary the effect of the first coil and thus determine the potential of the current delivered to the impressed circuit or circuits. 5th. As a new article of manufacture, a compensator for alternating current circuits, consisting of a coil, connections for the impressing circuit attached to such coil, and connections for impressed circuits also connected to the coil in overlapping positions, as herein described and for the purpose set forth. 6th. The method of regulating the potential of an alternating current herein set out, which consists in connecting an impressing circuit to a coil at various distances from its ends, and connecting an impressed circuit to the coil at various distances from the impressed circuit connections.

No. 53,660. Wood Working Machine.
(*Machine à travailler le bois.*)



Thomas Henry Madgett, and William Crawford, both of Burks Falls, Ontario, Canada, 3rd October, 1896; 6 years. (Filed 11th March, 1896.)

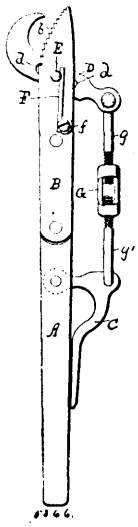
Claim.—1st. In a wood working machine, the combination of one or more cutter heads G, keyed removably on a shaft F, one end supported in fixed and the other in removable bearings, and rotated by belts and pulleys from a main driving shaft, B, as set forth. 2nd. In a wood working machine, the combination of one or more cutter heads G, keyed removably on a shaft F, supported in fixed and removable bearings, and an oscillating or rocking beam D, journalled in adjustable bearings and adapted to move the stick nearer to or farther from the cutter heads, as set forth. 3rd. The combination of the cutter heads G, and collars H, removably keyed on a shaft F, an oscillating beam D, journalled in adjustable bearings, and carrying head and tail stocks C, C^1, arbors *d*, *d*, provided with centerings *i*, *i*, and belts and pulleys rotating shaft and arbors in opposite directions, whereby the stick or sticks to be worked are rocked to and from the cutter heads, as set forth. 4th. In combination of the cutter heads G, and collars H, sleeved and keyed on a shaft F, journalled in fixed and removable bearings, former guides *e*, adjustably secured to said bearings, oscillating beam D, carrying arbors *d*, and formers 2, on said arbors, whereby said guides, formers, and cutter heads give a corresponding ornamentation to the stick or sticks held between said arbors, as set forth. 5th. The combination of the cutter heads G, and collars H, removably sleeved on a shaft F, one end of said shaft journalled in removable bearings, rocking beams D, carrying head and tail blocks C, C^1, provided with arbors *d*, *d*, rotated by worm gears K, L, driven by belts and pulleys, and a shaft P, toggle joints M, counter shafts *l*, carrying friction wheels W, and engaging a friction disc R, on said shaft P, and a lever T, to cut off motion, as set forth. 6th. The combination of the former 2, pin *g*, and bar *f*, having connection with a hollow sleeve *h*, and provided with a latch, lever T, for depressing shaft P, and disc R, into contact with the friction wheel W, and a spring to react said lever to make and break frictional contact for operation of the machine automatically, and to cease when the ornamentation is complete, substantially as set forth. 7th. The combination of the friction disc R, friction wheel W, keyed on a counter shaft *l*, and adjustable by a sliding bar V, for regulating the speed of the machine, as set forth. 8th. The combination in a wood working machine, of rotary knives or cutter heads shaped to the ornamentation desired, and arbors *d*, carried by a rocking base supporting the stick or sticks to be ornamented, said stick or sticks having an oscillation motion to and from the cutter heads, the ornamentation being produced from end to end of the stick or sticks, simultaneously as set forth.

No. 53,661. Pipe-Wrench. (*Clé à tuyaux.*)

Alson W. Freeman and Lewis B. Stenberg, both of Fullerton, Nebraska, U.S.A., 3rd October, 1896; 6 years. (Filed 4th August, 1896.)

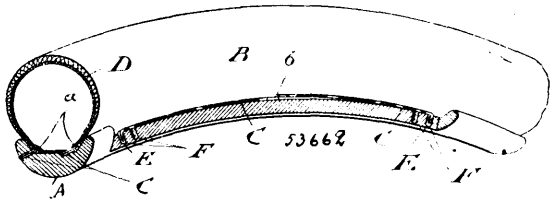
Claim.—1st. The combination in a pipe-wrench, of the handle A, plates or stationary jaws B and B^1 rigidly secured to the upper end thereof, a movable jaw pivoted between said plates, together with a lever C pivoted to the handle, rods *g* and g^1 connected to the movable jaw and to the lever, the ends of said rods being threaded in opposite directions, and a turn-buckle G in engagement with the threaded ends of the rods, substantially as shown and for the purpose set forth. 2nd. In a pipe-wrench, the combination with the handle A having plates or stationary jaws B and B^1 rigidly secured thereto and provided with a transverse aperture, of a movable jaw D having a series of transverse apertures *d*, a pivot-pin E adapted to pass through the apertures in the jaws and provided with a notch e^1, and a flat spring F secured to one of the jaws and adapted to

engage said notch, together with a lever C pivoted to the handle, oppositely-threaded rods g and g^1 connected to said lever and to the



movable jaw, and a turn-buckle G in engagement with the threaded ends of the rods, substantially as shown and for the purpose set forth.

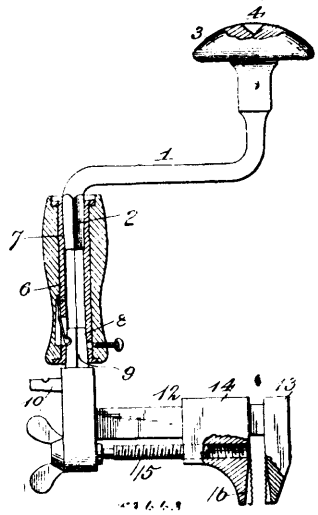
No. 53,662. Pneumatic Tire for Bicycles.
(*Bandage pneumatique pour bicycles.*)



The Goold Bicycle Company, assignee of William Sanfield Wilson, all of Brantford, Canada, 3rd October, 1896; 6 years. (Filed 3rd August, 1896.)

Claim.—1st. In a device of the class specified, the combination with the rim having holes formed therein, of a coil of wire running through pockets formed on the edges of the outer covering of the tire, the ends of the wire passing out of the pockets and being bent at approximately a right angle to the length of the wire so as to engage with said holes in the rim and thus hold the tire in operative position, substantially as and for the purpose specified. 2nd. In a device of the class specified, the rim A having holes F formed therein, in combination with the outer cover B, having a wire C formed in one or more coils running through pockets in its edges. the ends E of each wire passing out of its pocket in proximity to one another, and also being suitably shaped to enter the above-mentioned holes in the rim, substantially as and for the purpose specified. 3rd. In a device of the class specified, the rim A having holes F formed therein, which holes are bored diagonally outward from the corners of the groove of the rim, in combination with the outer cover B, having a wire C formed in one or more coils running through pockets in its edges, the ends E of each wire passing out of its pocket in proximity to one another, the hole b for the end passing from the left being located to the right of the hole for the end passing from the right, and the ends of each wire being suitably shaped to enter the holes F, substantially as and for the purpose specified. 4th. In a device of the class specified, the rim A having holes F formed therein, which holes are bored diagonally outward from the corners of the groove of the rim, in combination with the outer cover B, having a wire C formed in one or more coils running through pockets in its edges, the ends E of each wire passing out of its pocket in proximity to one another, the hole b for the end passing from the left being located to the right of the hole for the end passing from the right, and the ends E of each wire being suitably shaped to enter the holes F, in which they are held by the pressure of the outer cover, substantially as and for the purpose specified. 5th. In a device of the class specified, the rim A having holes F bored at each side of the rim at two different parts, in combination with the outer cover B having a wire C, formed in one or more coils running through pockets in its edges, the ends E of each wire passing out of its pocket in proximity to one another, each end being bent at approximately a right angle to the length of the wire to enter the holes F, substantially as and for the purpose specified. 6th. In a device of the class specified, the rim A having two or more holes F bored at each side of the rim at two different parts, which holes are bored diagonally outward from the corners of the groove of the rim, in combination with the outer cover B, having a wire C formed in one or more coils running through pockets in its edges, the ends E of each wire passing out of its pocket in proximity to one another, each end being suitably shaped to enter the holes F, in which they are held by the pressure of the outer cover, substantially as and for the purpose specified. 7th. In a device of the class specified, the rim A having diagonal holes F formed therein, in combination with the outer cover B, having a wire formed in one or more coils running through pockets in its edges, the ends E of each wire passing out of its pocket in proximity to one another, and bent at approximately a right angle to the length of the wire so as to engage with the said holes F, substantially as described and for purpose specified.

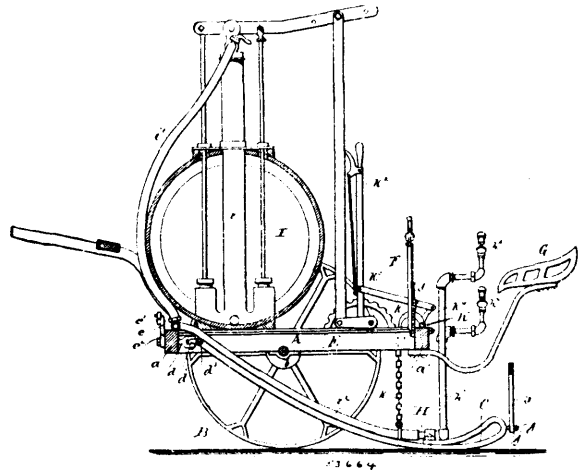
No. 53,663. Combination Tool. (*Outil à combinaison.*)



Charles Edward Thompson, Leesburg, Virginia, U.S.A., 6th October, 1896; 6 years. (Filed 28th August, 1896.)

Claim—1st. A sectional brace, comprising the ratchet cylinder, the wrench, the handle, and the brace-arm, arranged to co-operate, substantially as and for the purpose set forth. 2nd. A sectional brace, comprising the ratchet cylinder, the wrench, and the handle mounted upon the sleeve formed with the polygonal recessed ends, substantially as and for the purpose set forth. 3rd. A combination tool of the class described, comprising the ratchet cylinder 17, having the polygonal shank 18, the wrench 12 formed with the polygonal studs 9 and 10, the handle 5 mounted on the sleeve 6 having the tapered polygonal recesses 7 and 8 in the brace-arm 1, having the polygonal end 2, substantially and for the purpose set forth. 4th. A tool of the class described, comprising the ratchet cylinder 17, having the polygonal shank 18, in combination with the handle 5 provided with the spring stud 19, and mounted on the sleeve 6 having a tapered polygonal recess 9 and the orifice 20, substantially as and for the purpose set forth.

No. 53,664. Spraying Machine. (*Pulvérisateur.*)

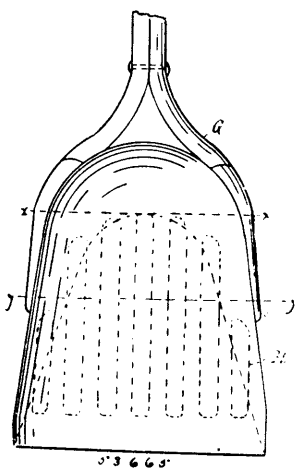


Joseph Heston Potter, Batavia, New York, U.S.A., 6th October, 1896; 6 years. (Filed 31st August, 1896.)

Claim.—1st. The combination with the draft frame and the shoe or support carrying the spraying devices, of a transverse rocking or swivel bar connected at its ends by horizontal pivots with said shoe

or support, and a vertical pivot whereby the central portion of the swivel bar is connected with said draft frame, substantially as set forth. 2nd. In a spraying machine, the combination with the draft frame, of a supporting shoe carrying a spraying device, a transverse rocking or swivel bar connected at its ends by horizontal pivots with said shoe, and a horizontal swivel rod journalled lengthwise in the draft frame and connected by a vertical pivot with the central portion of the rocking or swivel bar, substantially as set forth. 3rd. The combination with the shoe or support, of two pipes mounted side by side on said shoe or support, one of said pipes being longer than the other, and two nozzles arranged on the ends of said pipes and arranged transversely out of line, substantially as set forth. 4th. In a spraying machine, the combination with the draft frame provided with supporting wheels, of a supporting shoe adapted to trail on the ground and pivotally connected at its front ends with the draft frame in front of the axis of the wheels, and a spraying device mounted on the rear portion of the supporting shoe, substantiatially as set forth. 5th. In a spraying machine, the combination with the draft frame, of a supporting shoe carrying a spraying device and pivotally connected with the front portion of the draft frame, a hand adjusting lever arranged on the rear portion of the draft frame, and intermediate mechanism connecting said hand lever with the pivot of the supporting shoe, substantially as set forth. 6th. In a spraying machine, the combination with the draft frame, of a supporting shoe carrying a spraying device and connected at its front portion with a longitudinal swivel rod which is journalled in the front portion of the draft frame, a longitudinal rock shaft journalled in the draft frame and provided at its front end with an arm which is connected by a link with an arm on said swivel rod, and a hand adjusting lever connected with the rear end of the rock shaft, substantially as fet forth. 7th. In a spraying machine, the combination with the draft frame, of a supporting shoe pivotally connected with the draft frame and adapted to trail on the ground, an upright supply pipe mounted on the supporting shoe and provided at its upper end with a laterally projecting spray nozzle and a hand adjusting lever which is connected with said shoe, and whereby the nozzle can be shifted laterally, substantially as set forth. 8th. In a spraying machine, the combination with the draft frame, of two supporting shoes arranged side by side and pivotally connected with the draft frame, a spraying device mounted on each of said supporting shoes, and a hand adjusting lever connected with each of said shoes and permitting each spraying device to be adjusted independent of the other spraying device, substantially as set forth. 9th. In a spraying machine, the combination with the draft frame, of two supporting shoes connected with the draft frame and carrying spraying devices and a bar connecting said shoes, substantially as set forth. 10th. In a spraying machine, the combination with the draft frame, of two supporting shoes trailing on the ground with their rear portions, and pivotally connected with the draft frame at their front ends, a spraying device mounted on each of said shoes, and a sectional connecting bar having the outer ends of its sections pivotally connected with the rear portions of the shoes, and their inner overlapping ends adjustably connected by a bolt passing through openings in the sections, substantially as set forth. 11th. The combination with the shoe or support, of a supporting arm capable of vertical adjustment on said shoe or support, a main delivery pipe secured to said arm and provided with two branch pipes arranged on opposite sides of said shoe or support, and nozzles pivoted transversely to said branch pipes, substantially as set forth.

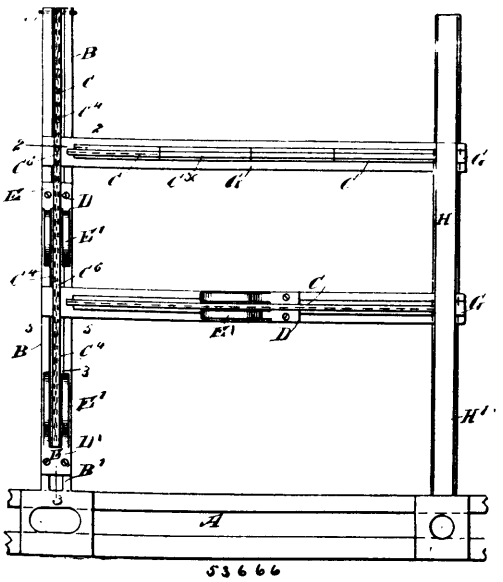
No. 53,665. Scoop Shovel. (*Pelle creuse.*)



Daniel A. Daly, Detroit, Michigan, U.S.A., 6th October, 1896; 6 years. (Filed 2nd September, 1896.)

Claim.—1st. A scoop, or shovel of like character having a blade formed in one piece from a sheet metal blank provided with wings and a handle having bifurcated ends shaped to conform to the sides of the blade and united thereto by means of the wings being rolled over the bifurcated ends to form inclosing sockets, substantially as described. 2nd. As a new article of manufacture a scoop shovel having a blade formed with converging sides and rounded back and formed in one piece from a blank provided with wings, and a handle having bifurcated ends shaped to conform to the sides and back of the blade, and united thereto by the wings being wrapped around them, substantially as described.

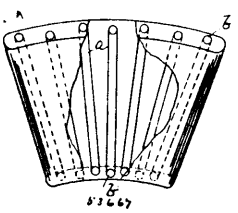
No. 53,666. Perforator. (*Perforateur.*)



Horace Greeley Miller, Punxsutawney, Pennsylvania, U.S.A., 6th October, 1896; 6 years. (Filed 22nd August, 1896.

Claim.—1st. A perforator, comprising a supporting bar, a perforating knife extended lengthwise of the bar and mounted to slide thereon, and a paper-releasing spring likewise extended lengthwise of the bar and mounted to slide on the supporting bar, substantially as described. 2nd. A perforator, comprising a supporting bar provided with a longitudinal slideway, a perforating knife arranged to move upon the said slideway, and provided with an end portion spaced from the said slideway, and a paper-releasing spring provided with a slide fitting into the space between the supporting bar and the said spaced end of the knife, substantially as described. 3rd. A perforator, comprising a supporting bar provided with a longitudinal groove forming a slideway, a perforating knife provided with a projection arranged to move upon the said slideway, and with a reduced end portion spaced from the slideway, and a paper-releasing spring provided with a slide fitting into the slideway under the reduced end of the knife, substantially as described. 4th. A perforator, comprising a supporting bar provided with a longitudinal slideway, a perforating knife arranged to move upon the said slideway, and provided with an end portion spaced from the said slideway, and a side arm adapted to carry perforating knives and provided with a portion fitting into the space between the supporting bar and the said spaced end of the knife, substantially as described. 5th. A perforator, comprising a supporting bar provided with a longitudinal groove forming a slideway, a perforating knife provided with a projection arranged to move upon said slideway, and with a reduced end portion spaced from the slideway, and a side arm adapted to carry perforating knives and provided with a portion fitting into the groove under the reduced end of the knife, substantially as described.

No. 53,667. Lamp Shade. (*Réflecteur de lampes.*)



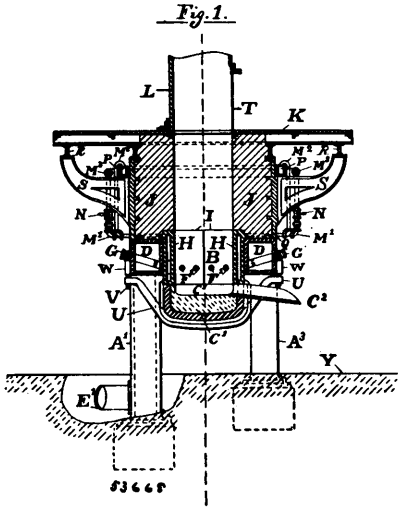
August Wolff, Optician, Berlin, Germany, 6th October, 1896; 6 years. (Filed 24th August, 1896.)

Claim.—1st. A lamp shade, having therethrough hollow passages through which the hot air generated by the lamp is conducted upwardly. 2nd. A lamp shade, consisting of a hollow body having therein a series of vertical or substantially vertical partitions by

means of which the hot air generated by the lamp is conducted through the shade, where it is mixed with cooler air and conducted off at the top of the shade, substantially as described. 3rd. A lamp shade, consisting of a hollow body having arranged therethrough substantially vertical tubes opening out into the air at the top and bottom, in the manner and for the purpose substantially as described. 4th. A lamp shade, consisting of a hollow body having arranged therein a zigzag wall extending from the top to the bottom and forming a series of chambers in said shade and a series of tubes arranged in said chambers and opening out at either end into the air and upper and lower air holes allowing communication from the outer air to the said chambers, substantially as described and shown and for the purpose specified.

No. 53,668. Furnace. (*Fournaise.*)

Fig. 1.



Herbert Lang, Oakland, and Risdon Iron and Locomotive Works, San Francisco, both in California, U.S.A., 6th October, 1896; 6 years. (Filed 31st July, 1896.)

Claim.—1st. In a smelting furnace, hollow box legs or supports, in the manner described, one or more legs connecting to the wind box and forming a conduit for wind, substantially as described. 2nd. In a smelting furnace, hollow box legs or supports, in the manner described, one or more of the legs connecting to the wind box, and extending as a conduit for and receiving wind below the level of the floor, substantially as described. 3rd. In a smelting furnace, hollow box legs or supports to sustain the furnace, arranged as conduits for wind and also water pipes, provided with inlet ways below the floor level, and communicating with the wind and water supply devices at and above the tuyeres, substantially as described. 4th. In a smelting furnace, a wind box of angular section, communicating with and resting on hollow box-formed legs, extending around or on all sides of the furnace, provided with tuyeres and tuyere pipes, in the manner substantially as described. 5th. In a smelting furnace, a hollow continuous wind box of angular section, resting on the furnace legs or supports and forming girders to support the furnace, substantially as described. 6th. In a smelting furnace, a wind box of angular section, forming girders to support the furnace, and provided with tuyeres and tuyere pipes, the latter composed of fixed and movable tubes, one within the other, and perforations in the fixed tubes to admit blast from the wind box, substantially as described. 7th. In a smelting furnace, a wind box of angular section, resting on and receiving wind from one or more of the legs on which the wind box rests, therewith telescopic tuyere pipes, the outer one rigidly fixed in the outer and inner sides of the wind box, and the inner tube sliding therein so as to control or close the supply of wind to the outer tube and the tuyeres, substantially as described. 8th. In a smelting furnace, a wind box of angular hollow section, acting as a girder for the furnace walls, flush therewith on the outer faces and provided with fastenings to receive and sustain the water jacket on the inside of the furnace, substantially as described. 9th. In a smelting furnace, a hollow wind box and girder, in the manner described, therewith a water jacket forming the interior of the furnace, composed of hollow sections connected to and removable from the wind box, in the manner substantially as described. 10th. In a smelting furnace, a water jacket composed of hollow sections, in the manner described, provided with dovetail ledges and adapted to be fastened to the wind box and removable therefrom, in the manner substantially as described. 11th. In a smelting furnace, a water jacket composed of sections attachable to and removable inwardly from the wind box, provided with tuyeres at the bottom, and water inlets and outlets at the top, in the manner and for the purposes substantially as described. 12th. In a smelting furnace, a sectional water jacket, in the manner described, composed of hollow units or sections connecting with a water supply pipe extending around the furnace above the tuyeres, connecting pipes from this main supply pipe provided with cocks to regulate the cooling water, substantially as described. 13th. In a smelting furnace, a continuous wind box and girder in the manner described, a sectional water jacket furnace lining connected thereto, superimposed masonery forming the upper portion of the shaft, resting on the wind box and surrounded by sustaining plates forming the exterior of the furnace, flush with the wind box on the outer faces, substantially as described. 14th. In a smelting furnace, the combination of the hollow supporting legs and conduits, wind box and supporting girder D, water jacket sections I, masonery J and outer covering Q, the whole structure flush on the outer and inner faces, in the manner substantially as described.

No. 53,669. Medical Compound.

(*Composition médicinale.*)

Lauran Dépeins, Ste. Anne de Prescott, Ontario, Canada, 6th October, 1896; 6 years. (Filed 25th August, 1896.)

Claim.—A medical compound composed of white vervain, logwood, goldthread, Indian sarsaparilla, Indian peppermint balm, yarrow roots of land cress, turpentine and sugar and water, substantially in the proportions and for the purposes set forth.

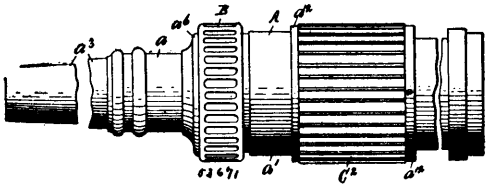
No. 53,670. Medical Compound.

(*Composition médicinale.*))

Lauran Dépeins, Ste. Anne de Prescott, Ontario, Canada, 6th October, 1896; 6 years. (Filed 25th August, 1896.)

Claim.—A medical compound composed of white vervain, rose vervain, blue vervain, yarrow, Indian peppermint balm, Indian sarsaparilla, goldthread, aloes, camomille, mandrake root, alcohol and water, substantially in the proportions and for the purposes set forth.

No. 53,671. Hose Nozzle. (*Lance de boyau.*)

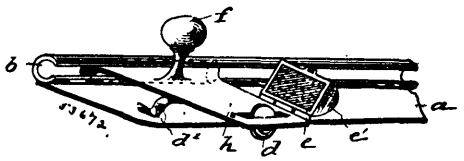


Peter Byron Montrois, Watertown, New York, U.S.A., 6th October, 1896; 6 years. (Filed 24th August, 1896.)

Claim.—1st. In a hose nozzle, the combination with an inclosing shell A provided with a valve seat a^{10} an internal guide chamber A^2, and water passages A^3, a portion a^4 of the inner face of said shell being contracted forwardly and a portion a^{10} of said face at the rear of the guide chamber being contracted rearwardly, of a valve C movable towards and away from the seat a^{10}, a head C^1 movable in the chamber A^2 and connected to the valve C, and a revoluble sleeve C^2 encircling the shell A and connected to the head C^1 for actuating the same, substantially as and for the purpose set forth. 2nd. In a hose nozzle, the combination of an inclosing shell A having an internal passage and an annular spray opening a^2 and its outer peripheral wall opening from said passage a sleeve B movable lengthwise of the inclosing shell A for opening and closing the spray opening, and a valve C having a substantially conical rear face for deflecting the water through the spray opening, substantially as and for the purpose described. 3rd. In a hose nozzle, the combination of an inclosing shell A having an internal passage A^1 and a forwardly inclining annular spray opening a^2 in its outer peripheral wall opening from the passage A^1, the front side of the spray opening being extended inwardly beyond the rear side of said opening and being formed with a forwardly inclining annular shoulder a^8 and a sleeve B screwing upon the shell A at the rear of the spray opening for opening and closing the same, said shell being provided with a forwardly inclined annular face a^9, substantially as and for the purpose specified. 4th. In a hose nozzle, the combination of an inclosing shell A consisting of front and rear sections $a\,a^1$ inclosing an internal passage A^1 and arranged end to end with their adjacent end faces separated for forming an annular spray opening a^2 opening from said internal passage, means for connecting the sections, and a sleeve B movable lengthwise of the shell A for opening and closing the spray opening a^2, substantially as and for the purpose set forth. 5th. In a hose nozzle, the combination of an inclosing shell A consisting of front and rear sections $a\,a^1$ inclosing an internal passage A^1 and arranged end to end, said sections having their adjacent end faces separated and inclined forwardly for forming an annular spray opening a^2, screws a^5 passed through said end faces, sleeves encircling the screws, and a sleeve B movable lengthwise of the shell A for opening and closing the spray opening, substantially as and for the purpose described. 6th. In a hose nozzle, the combination of an inclosing shell A consisting of front and rear sections $a\,a^1$ inclosing an internal passage A^1 and arranged end to end with their adjacent end faces separated for forming an annular spray opening a^2, the front section a being of less diameter than the remaining portion of the shell A and the front end of the inner

peripheral face of the rear section a^1 being contracted for deflecting the water against the end face of the front section, means for connecting the sections, and a sleeve B movable lengthwise of the shell A for opening and closing the spray opening, substantially as and for the purpose described.

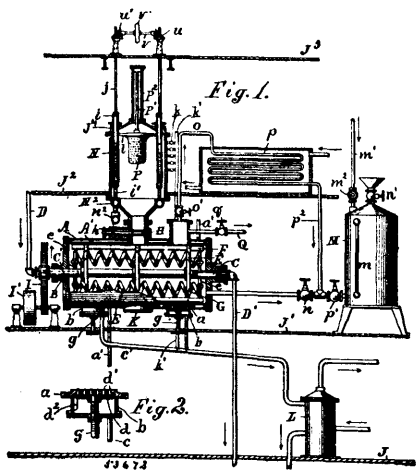
No. 53,672. Apparatus for Ruling Straight Lines.
(*Appareil à tracer des lignes droites.*)



August Mundt, Berlin, Germany, 6th October, 1896; 6 years. (Filed 24th August, 1896.)

Claim.—1st. The combination of a straight edge *a*, having a tube *b* fixed along it, said tube being slotted longitudinally and a plate or stem *h*, having a tubular guide block b^1 fast thereon adapted to fix the tube *b*, a marking roll mounted in said plate and partially extending through the same, and an inking pad above the plate fixed thereto and adapted to contact with the upwardly projecting part of the said marking roll, substantially as described. 2nd. The combination of a straight edge and a guide tube fixed thereon, said tube being slotted longitudinally, a plate *h* having guide block b^1 to fit said guide tube, a casing *c* fitted to the end of said plate and hinged to the same, an inking pad within said cap, a marking roll mounted in tail plate and adapted to project through the same into the said pad, a spring d^2 fixed to the plate and adapted to normally hold the marking roll away from the paper, and a knob or button *f* also fast on said plate, substantially as described and shown.

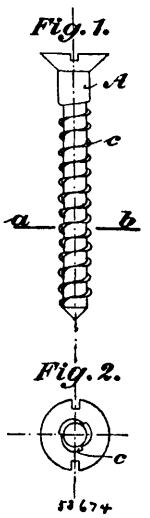
No. 53,673. Rendering, Drying and Extracting Apparatus for Garbage and Refuse. (*Appareil à sécher et extraire les trépailles, etc.*)



Cyrus C. Currier, Summit, New Jersey, assignee of Emil Holthans, Canarrie, New York, U.S.A., 6th October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—1st. In an apparatus for treating garbage, the combination, with a horizontal drying cylinder having a rotating shaft carrying scrapers adjacent to the wall of the cylinder, of the outlet plate *a* affixed in the bottom of the cylinder and perforated with a series of straight holes, the casing *b* inclosing the same and having an outlet *c*, the plunger *d* provided with the parallel pins d^1 to fit the perforations in the outlet plate, and means for moving the plunger to and from the plate, the plunger being adapted to close the outlet holes, and the pins operating to prevent the material from entering the holes when thus closed, and to dislodge the material from the holes when required, the whole arranged and operated as and for the purpose set forth. 2nd. In an apparatus for treating garbage, the combination, with a horizontal drying cylinder having the shaft B extended through the cylinder, and provided with disconnected passages C, C^1, in its opposite ends, and with supports or arms having scrapers attached to the same in proximity to the wall of the cylinder, of a series of spirally coiled pipes extended from end to end of the cylinder at the sides of the shaft, and fastened to the scrapers with the opposite ends of the said coils connected respectively to the passages C, substantially as herein set forth. 3rd. In an apparatus for treating garbage, a drier comprising a horizontal cylinder having the shaft extended through the cylinder, and formed with steam inlet and outlet passages, the radial pipes *e* connected with such passages, and a series of spirally coiled heating pipes carried by the shaft, each at one side of the same, with its ends coupled to the pipes *e*, as and for the purpose set forth. 4th. In an apparatus for treating garbage comprising a horizontal drying cylinder with shaft extended through the same and provided with scrapers, steam inlet and outlet at the ends of such shaft, heating pipes carried by the shaft and connected with such inlet and outlet, valves at the bottom of the cylinder for discharging the grease, outlets at the top with connections for jet and surface condensers, a naptha tank having connection to the cylinder and to the surface condenser, and a pipe for supplying compressed air to the upper part of the naptha tank, the whole arranged and operated substantially as herein set forth. 5th. In a rendering apparatus, the combination, with a vertical cylinder having inlet at the top and outlet at the bottom, of a piston and means for forcing the same downward therein, a perforated trunk projected downward from the piston and a pipe connection extended from the interior of the trunk through the cover of the cylinder, substantially as herein set forth. 6th. In a rendering apparatus, the combination, with the rendering tank having one or more stand-pipes with steam and water connections at the bottom, of a perforated piston with perforated trunk from its lower side, a stuffing-box upon the cover of the tank, and a pipe connection extended from the interior of the trunk through the stuffing-box, substantially as herein set forth. 7th. In a rendering apparatus, the combination, with an upright rendering tank having a perforated movable piston with perforated trunk projected from its under side, and a stuffing-box in the cover tank, of a pipe extended from the interior of the trunk through the stuffing-box, and connected with a steam siphon to draw the liquid from the trunk, substantially as set forth. 8th. The combination, with a rendering tank having one or more perforated stand-pipes extended upwardly from the bottom and connected with a suitable discharge pipe to withdraw the tank water, and with a steam connection to force steam therein, and a tubular cover fitted to each of such stand-pipes and extended upwardly through the top of the tank and provided with means for raising and lowering such cover or covers, as and for the purpose set forth. 9th. A rendering tank provided with the series of perforated stand-pipes connected with a common discharge pipe, stuffing-boxes upon the top of the tank, the tubular covers fitted to the exterior of the stand-pipes and extended through the stuffing-boxes, and means for raising and lowering the covers simultaneously, as and for the purpose set forth.

No. 53,674. Stone Screw. (*Vis.*)



Hermann Schwartzenhaner, Berlin, Germany, 6th October, 1896; 6 years. (Filed 27th August, 1896.)

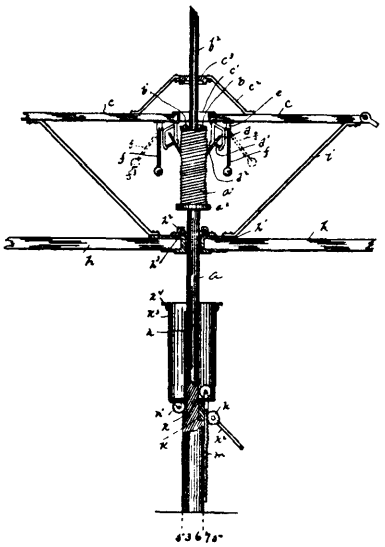
Claim.—1st. A screw having recesses in the outer edges of the spiral rib forming the thread, as set forth. 2nd. A screw having recesses in the outer edges of the spiral rib forming the thread, which recesses taper off in the direction of the length of the screw, as set forth. 3rd. A screw having ribs of prismatical cross-section forming the thread, and recesses in the thread, as set forth.

No. 53,675. Merry-Go-Round. (*Carrousel.*)

Lyman D. Howard, Nelsonville, Ohio, U.S.A., 6th October, 1896; 6 years. (Filed 27th August, 1896.)

Claim.—1st. The combination of a spirally-threaded column, a rotating frame, inclined wheels journalled in said frame, said wheels bearing and adapted to run on said spiral column threads, substantially as and for the purpose specified. 2nd. In a merry-go-round, the combination of a spirally-threaded column and a framework adapted to rotate about the same column, of hangers jointedly

connected with said frame, an inclined shaft in each of said hangers, and wheels mounted on said shafts and running in the threads of



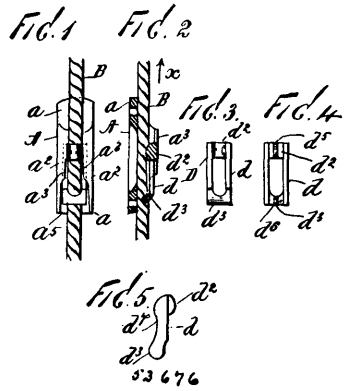
said column, substantially as and for the purpose specified. 3rd. In a merry-go-round construction, the combination of a spirally-threaded column and a framework adapted to rotate about said column, two or more wheels carrying hangers jointedly connected with said frame, and means for automatically retaining the wheels of said hangers on the threads of said column when said frame is rotating, substantially as and for the purpose specified. 4th. In a merry-go-round, the combination with a spirally-threaded column, and a framework adapted to rotate about said column, of hangers jointedly connected with said frame, wheels journalled in said hangers, weighted dogs pivotally supported from said frame, the heads of said dogs being adapted by centrifugal force imparted by the rotary motion of the said frame to be thrown into contact with said hangers and thereby retain the wheels of the latter on the threads of said column, substantially as and for the purpose specified. 5th. In a merry-go-round, the combination with the vertical standard, a spirally-threaded column portion thereon, a vertical stem extension of said column, and a set of bearing balls about said stem at the head of said column, of a rotary framework, hangers jointedly connected with said framework, and inclined wheels journalled in said hangers and adapted to run on the threads of said column, a ring-plate supported above and from said frame, a ring-plate adapted when said wheels are at the bottom of the column to rest and run on said bearing balls, substantially as and for the purpose specified. 6th. In a merry-go-round, the combination with the standard, a spirally-threaded column thereon, a framework adapted to rotate about said column and standard, wheel carrying hangers jointedly connected with said framework, the wheels of said hangers being adapted to run on the threads of said column, and means for supporting said framework when said wheels are at the bottom of the column, of a cylinder surrounding said standard below said framework, a rack depending from said cylinder, and a pinion-wheel journalled from said standard, the teeth of said wheel engaging with said rack, said cylinder being adapted when elevated to come into contact with and raise said rotating frame, substantially as and for the purpose specified. 7th. In a merry-go-round construction, the combination with two vertical standards, a spirally-threaded column on each of said standards, a rotary framework adapted to travel about each of said columns and standards, said frameworks having wheel bearings on the threads of said columns, a pulley arranged above each of the said columns, and a rope connecting the upper end portions of said rotary frames and running over said pulleys, substantially as and for the purpose specified.

No. 53,676. Cord, Rope or Chain Fastener.

(*Attache pour cordes et chaînes.*)

James Lumsden, Aberdeen, Scotland, 6th October, 1896; 6 years. (Filed 14th August, 1896.)

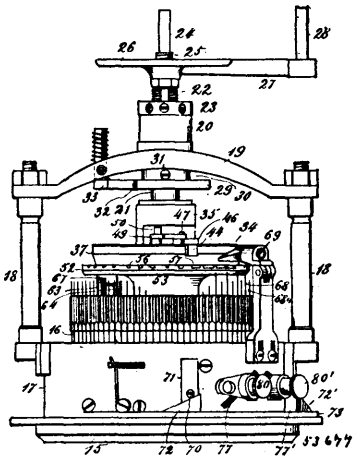
Claim.—1st The herein described fastening device for connecting cords or chains with window sashes and other articles, which consists of a base plate provided with outwardly-directed side plates, which are provided with inwardly-directed flanges, and between which the rope, chain or cord is adapted to be passed, and a clamp or wedge which is adapted to be passed between said flanges and to securely hold the rope, cord or chain in connection with said base plate, substantially as shown and described. 2nd. The herein described fastening device for connecting cords or chains with window sashes and other articles, which consists of a base plate provided with side plates having inwardly-directed flanges, and between which the rope, chain or cord is adapted to be passed, and a clamp or wedge which is adapted to be passed between said flanges and to



securely hold the rope, cord or chain in connection with said base plate, said base plate being provided with notches or recesses at the ends of said side plates, and said clamp or wedge being provided at one end with a shoulder or projection which extends outwardly between the side plates and being inwardly curved at the opposite side, substantially as shown and described. 3rd. The herein described fastening device for connecting cords or chains with window sashes and other articles, which consists of a base plate provided with side plates having inwardly-directed flanges, and between which the cord or chain is adapted to be passed, and a clamp or wedge which is adapted to be passed between said flanges and to securely hold the rope, chain or cord in connection with said base plate, said base plate being provided with notches or recesses at the ends of said side plates, and said clamp or wedge being provided at one end with a shoulder or projection which extends outwardly between the side plates and being inwardly curved at the opposite end, and being provided also at each end with inwardly-directed teeth or projection, substantially as shown and described.

No. 53,677. Knitting Machine and Knit Fabric.

(*Machine à tricoter et tricot.*)

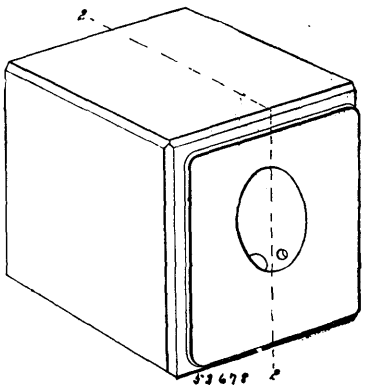


Clark Older, Portage, Wisconsin, U.S.A., 6th October, 1896; 6 years. (Filed 20th August, 1896.)

Claim.—1st. The combination, of a stationary needle cylinder, a revoluble cam cylinder, said cam cylinder provided with a plurality of yarn guides and with a plurality of cams, a shaft, means for rotating said shaft with the cam cylinder, a pin supporting plate, and means carried by the shaft for throwing the pins of the plate out radially at a point corresponding to the point of location of one of the cams of the cam cylinder, substantially as described. 2nd. The combination, of a stationary needle cylinder, a revoluble cam cylinder, said cam cylinder provided with a plurality of yarn guides and with a plurality of cams, a shaft, means for rotating said shaft with the cam cylinder, when said cam cylinder is rotated in one direction, and for holding said shaft stationary when the cam cylinder is rotated in the opposite direction, a pin supporting plate, means carried by the shaft for throwing the pins carried by the plate out radially at a point corresponding to the point of location of one of the cams of the cam cylinder, and means for adjusting the cam

which is farthest removed from the outward throw of the pins into and out of action, substantially as described. 3rd. The combination of a stationary needle cylinder, a revoluble cam cylinder, said cam cylinder provided with a plurality of yarn guides, and with a plurality of cams, one of said cams, when the cam cylinder is revolved in one direction, constructed to raise every alternate needle to a position to engage one of the yarns, and when said cam cylinder is revolved in the opposite direction, constructed to raise all the needles to a position to engage said yarn, a shaft, means for rotating said shaft with the cam cylinder, when said cam cylinder is rotated in one direction and for holding said shaft stationary when the cam cylinder is rotated in the opposite direction, a pin supporting plate, means carried by the shaft for throwing the pins of the plate out radially at a point corresponding to the point of location of one of the cams of the cam cylinder, and means for adjusting the cam which is farthest removed from the outward throw of the pins into and out of action, substantially as described. 4th. The combination, of a cam cylinder having a lug projecting inwardly therefrom, a shaft, a casing rotatable with the shaft and having cams therein, a plate through which the shaft passes freely, said plate adapted to support a series of pins, which pins are actuated by the cams, a depending part from the pin carrying plate, said depending part consisting of two sections, which when adjusted together leave a slot for the reception therein of the lug of the cam cylinder, and means for adjusting the width of said slot, substantially as described. 5th. A knit fabric composed of two thread lines in each course, one thread line *a* having a long loop in one wale and a short loop in the next wale, as described, the other thread line *b* floating behind the wales consisting of long loops, but being formed into loops in the other wales, which loops are drawn through the short loops of the other thread line *a*, said short loops being drawn through the loops last formed in the other thread line *b*, for the purpose set forth.

No. 53,678. Inkstand. (*Encrier.*)

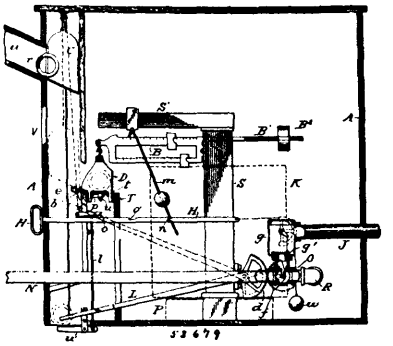


Charles Henry Gardner, Philadelphia, Pennsylvania, U.S.A., 6th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. An inkstand constructed as herein described and as shown in the drawing. 2nd. An inkstand provided with an interior reservoir, an opening in one side or end thereof, and a plug by which said opening is adapted to be closed, said plug being provided with an inwardly and downwardly-directed nipple, having a cistern formed therein, which is provided with an orifice at the bottom of said nipple, and with a mouth which opens outwardly, substantially as shown and described. 3rd. An inkstand provided with an interior reservoir, an opening in one side and end thereof, and a plug by which said opening is adapted to be closed, said plug being provided with an inwardly and downwardly-directed nipple, having a cistern formed therein, which is provided with an orifice at the bottom of said nipple, and with a mouth which opens outwardly, said mouth of the cistern being much larger than the orifice at the inner end thereof, and said nipple being also provided between said orifice and the inner face of the plug with vent openings, which are formed in the lower side thereof, below the lower part of the mouth opening, substantially as shown and described. 4th. An inkstand provided with an opening in one side thereof, and a removable plug in which is formed a downwardly-directed siphon cistern which is provided with an orifice which opens near the bottom of the reservoir of the inkstand, and with a mouth which opens outwardly, substantially as shown and described. 5th. An inkstand provided with an opening in one side thereof, and a removable plug in which is formed a downwardly-directed siphon cistern, which is provided with an orifice which opens near the bottom of the reservoir of the inkstand, and with a mouth which opens outwardly, said mouth of the cistern being in a vertical plane, and said plug being provided with vent openings which are formed therein below the lower side of the mouth, said vent openings being designed to form a communication between the cistern and the reservoir of the stand, substantially as shown and described.

No. 53,679. Machine for Measuring or Weighing Fluids. (*Machine pour mesurer ou peser les fluides.*)

Fig. 1.



David W. Curtis, Fort Atkinson, Wisconsin, U.S.A., 6th October 1896; 6 years. (Filed 22nd August, 1896.)

Claim.—1st. In combination with weighing scales, provided with a receiving tank having inlet and outlet pipes arranged to operate as described, the three way valve O, the pivoted lever L for operating said valve, and the weight receiver D provided with trips for releasing the weight when the scale beam rises, whereby the weight is caused to operate the valve automatically, substantially as and for the purpose set forth. 2nd. The combination in a milk weighing apparatus, of a weighing scale provided with a receiving tank, a delivery pipe connected with said tank, a valve for opening and closing said pipe, a lever arranged to operate said valve, and a weight receiver attached to the beam of the scale adapted to receive a weight and drop the same upon the valve operating lever when the scale beam rises, substantially as and for the purpose set forth. 3rd. In combination with the receiving tank and scale, the pipes J, R and N with the three way valve O, and supplemental valve g^1, with its operating rod H and counterweight *w*, all arranged to operate substantially as shown and described. 4th. In combination with the supplemental counterweighted valve g^1, the rod H and dog *o* arranged to engage with said rod, and the pivoted lever *u* connected to said dog, substantially as shown, whereby the falling weight is caused to release the rod and permit the valve to close, as set forth. 5th. The combination in a milk weighing apparatus, of a receiving tank mounted on a scale and provided with a delivery pipe and valve, a device for locking the beam of said scale arranged to be thrown out of its locking position by the movement of the valve opening rod H, substantially as shown and described. 6th. The combination in a milk weighing apparatus of the valve operating lever L and the weight box C connected thereto, substantially as shown, whereby the movement of the box with a weight therein will raise the lever to open the valve, and the falling of a weight upon the lever will close the valve and return the box to positian for the reception of another weight. 7th. The combination in a milk weighing apparatus, of the vertical case A provided with a chute *a*, for the entrance of the weights, and an opening a^1 for the passage therefrom of the weights to the weight receiver attached to the scale beam, and the box C having an inclined bottom and openings at its front and rear edges, with means for moving said box up and down for the purpose of releasing and transferring the weights successively to the weight receiver attached to the scale beam, as set forth. 8th. In combination with the vertically reciprocating weight box C, the casing A provided with the chute *a* and the opening V, for the automatic escape of an extra weight in case one be accidentally or otherwise placed in the box. 9th. The weight receiver consisting of a box open at one side to permit a weight to roll therein, the hinged plates *t* provided with the arms *u* for holding the weight until said arms are released by the movement of the receiver, as set forth. 10th. In combination with the weight receiver provided with the hinged plates *t* provided with the arms *u*, the casing T provided with recesses M in its inner walls to permit the arms to swing outward as the receiver is raised and release the weight, as set forth.

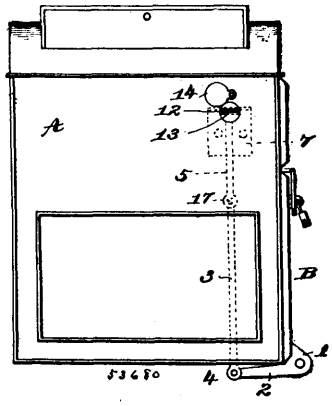
No. 53,680. Letter Carrier's Register.

(*Registre pour facteurs.*)

John D. Miller, Samuel M. Jones and Charles M. Towson, all of Washington, Columbia, U.S.A., 6th October, 1896; 6 years. (Filed 26th August, 1896.)

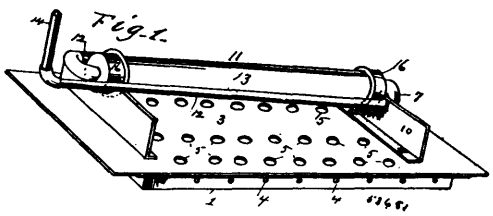
Claim.—1st. The combination with a letter box, an opening in said box, a ticket adapted to enter said opening and a marking mechanism secured in said box back of said opening and means connected to the door of the box to operate said marking mechanism. 2nd. The combination with a letter box, a marking mechanism secured in said box, means connected to the door of the box to operate said mechanism at each collection of mail from said box and a ticket to receive a mark from the marking mechanism when

operated. 3rd. The combination with a letter box, an opening in said box, a ticket adapted to enter said opening, a marking mechanism secured back of said opening in the box, means connecting said marking mechanism to the collector's door of the box whereby said mechanism is operated by the opening of said door. 4th. The combination with a letter box, an opening in said box, a ticket adapted to enter said opening, a plate secured back of said opening in the box, a groove in said plate registering with said opening, an opening in said plate, a rod adapted to work in said opening, a marking device on said rod, a lever pivoted to said rod and means connecting the said lever with a collector's door on the box whereby the marking mechanism is operated by the opening of the door. 5th. The combination with a letter box, the collector's door hinged thereto, a lever extending from said hinge, a marking mechanism secured in said box, means connecting said mechanism and said lever, an opening through the box in front of said marking mechanism and a ticket adapted to pass through said mechanism. 6th. The combination with a letter box, a marking mechanism secured therein, an opening through said box in front of said marking mechanism, means to operate said mechanism each time the box is opened for the purpose of collecting mail, of a ticket composed of a series of strips of suitable material pivotally secured together, each of which is adapted to pass through said opening to the marking mechanism.



No. 53,681. Fluid Fuel Burner.

(*Brûleur pour fluide combustible.*)



William Elias Vernon, Oskaloosa, Iowa, U.S.A., 6th October, 1896; 6 years. (Filed 17th August, 1896.)

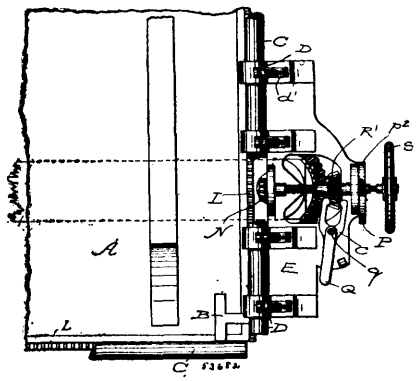
Claim.—1st. In a fluid fuel burner, the combination of a burner and a receiver with the initial ignition or oil pan, having openings 4 and provided with a cap-plate 3 having perforations 5 upon opposite sides of its longitudinal centre, so as to have its central imperforate portion directly over and parallel with the burner-tube and longitudinally under the receiver 13, whereby the flame strikes this imperforate portion and is spread before passing through the perforations 5, so as to bring it more intimately into contact with the air-supply through the side perforations 4, substantially as described. 2nd. In a fluid fuel burner, the oil pan provided with openings 4 and having the cap 3 provided with perforations 5 upon each side of its centre, so as to leave an imperforate portion of the cap-plate directly under the receiver, combined with the burner tube placed under the imperforate portion of the cap-plate, the connecting pipe 7, the receiver 13 supported upon the flanges 10 upon the cap-plate, the tube 15 connected with the pipe 7 and extending inwardly into the receiver, the conductor pipe 12 extending longitudinally around the receiver 13, and connected with its opposite end from the tube 15, and the supply pipe 14 connected with the outer end of the conductor 12, the parts being arranged and constructed to operate, substantially as shown and described.

No. 53,682. Drawing Board and T-Square.

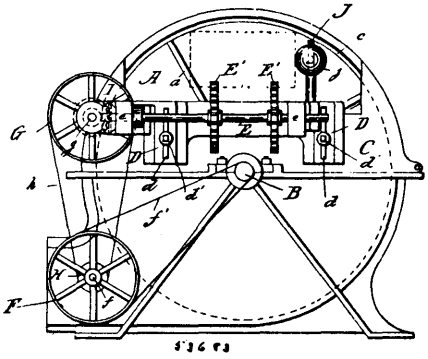
(*Planche à dessein et équerre.*)

Gustav Grund, Berlin, Prussia, Germany, 6th October, 1896; 6 years. (Filed 18th August, 1896.)

Claim.—1st. A combined drawing board and T-square, comprising guide shafts secured to the underside of the said board, by means of brackets, and a head-plate pivotally supporting the blade of the T-square and held upon the said guide shafts by guide bearings adapted to slide thereon, substantially as described. 2nd. In a drawing apparatus, the combination of the drawing board, the brackets secured to the corners thereof, the guide shafts, the T-square head plate, guide bearings secured thereto and fitted upon the guide shafts, a rack bar secured to the said board and a shaft and gear wheel supported upon the head plate and adapted to move the same by the engagement of the gear wheel and rack bar, substantially as described. 3rd. A T-square, comprising a head plate E, a segmental disc G secured thereto, a gear plate K and blade J secured thereto, a shaft M carrying a gear pinion R^1 and a shipping lever supported upon the head plate to move the said pinion into or out of gear with the gear plate K, substantially as described. 4th. A T-square, comprising a head plate E, a segmental plate G secured thereto, having a slot g and index g^1, a gear plate K, turret pin H, blade J, and index pivoted to said head plate, a gear pinion to engage the gear plate K, and an index F supported upon said pin and adapted to be adjusted and fixed thereon, substantially as described. 5th. In a drawing apparatus, the combination of the drawing board, carrying guide shafts, a T-square head fitted with guide brackets adapted to said shafts, rack plates secured to the edge of the drawing board, a shaft carrying a gear wheel to engage with said rack plates, provided with grooves therein and adapted to slide endways in bearings on the T-square head, and a lever pivoted to said head to engage with said grooves and hold the shaft and gear wheel in either position, substantially as described.



No. 53,683. Bark Cutter. (*Coupe-écorce.*)



Samuel Wesley Butterfield, Three Rivers, Quebec, Canada, 6th October, 1896; 6 years. (Filed 22nd August, 1896.)

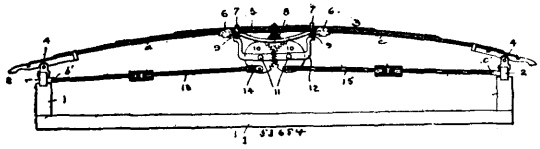
Claim.—1st. In a bark cutter, the combination, with a revoluble disc provided with knives on its face, of toothed wheels for supporting a log in front of the cutters, means for revolving the said toothed wheels, and a bearing for the end of the log to thrust against, substantially as set forth. 2nd. In a bark cutter, the combination, with a revoluble disc mounted on shaft B and provided with knives on its face, of toothed wheels secured upon a shaft E in front of the said disc, vertically adjustable bearings supporting the shaft E, driving mechanism operatively connecting the shaft E with the shaft B, and a bearing for the end of the log to thrust against, substantially as set forth.

No. 53,684. Ressort de voiture. (*Spring for vehicles.*)

Charles Fournier, Danville, Québec, Canada, 7 octobre 1896; 6 ans. (Déposé, 1er septembre 1896.)

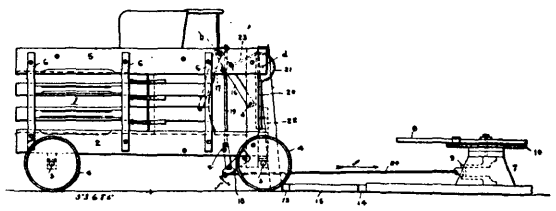
Résumé.—1° La combinaison avec un ressort de voiture d'une forte pièce métallique fixée par ses deux extrémités vers le milieu

du dit ressort et ployée de manière à laisser entre le sommet du ressort et cette pièce un espace suffisant pour interposer un ressort à



boudin. 2° Dans un système de deux ressorts réunis ensemble par des barres transversales 9 ; la combinaison de roues dentées 10 articulées dans une pièce 12, fixée aux milieux des barres transversales 9, avec les tirants 13 et 15 ayant chacun une extrémité articulée vers le bas des roues 10, et l'autre aux sommiers 2 ; le tout tel que décrit et pour les fins indiquées.

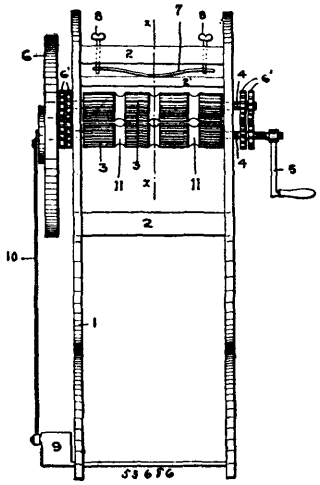
No. 53,685. Presse à foin. (*Hay press.*)



Wilfrid Leclair, Saint-Guillaume d'Upton, Québec, Canada, 7 octobre 1896 ; 6 ans. (Déposé, 14 août 1896.)

Résumé.—1° Dans une presse à foin horizontale, un mécanisme pour actionner le piston, constitué par une bielle 17 légèrement rec urbée à sa partie supérieure articulée en *b*, avec un levier 16, qui lui-même a son autre extrémité articulée à la charpente de la presse en *a*, un fort levier 18, articulé vers le bas de la dite charpente, une tige métallique reliant les extrémités libres de la bielle 17 et du levier 18, un autre levier 20 articulé à la charpente en *d*, le dit levier 20 étant pourvu d'une demi-roue 21, sur laquelle passe une corde le reliant au levier 16, et un poids 22 suffisant pour maintenir normalement tous le mécanisme dans la position montrée aux dessins, le tout tel que décrit et pour les fins indiquées. 2° Dans une presse à foin horizontale, un cabestan constitué par une charpente 7, un anneau elliptique 10, fixé sur la dite charpente, un essieu c udé 9, muni d'oreilles 9^1, de plaques *p*, disposées pour recevoir ces oreilles 9^1, et d'un timon 8 articulé à l'essieu coudé au moyen d'un engrenage à rochet, le tout tel que décrit et pour les fins indiquées.

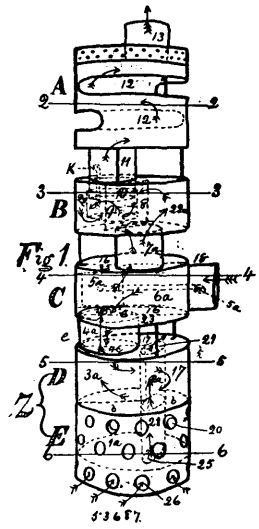
No. 53,686. Appareil pour éplucher le blé-d'inde.
(*Corn shelling machine.*)



Joseph Payment, Rigaud, Québec, Canada, 7 octobre 1896 ; 6 ans. (Déposé, 25 août 1896.)

Résumé.—Dans une machine à éplucher le blé-d'inde, la combinaison avec une charpente constituée par des pieds 1 et des barres transversales 2 ; de rouleaux cannelés 3 montés sur des axes 4, dont l'un est fixé dans ses coussinets, mais l'autre susceptible de monter ou baisser au besoin, les dits axes étant pourvus de roues d'engrenages 6^1 à chacune de leurs extrémités, et l'un d'eux pourvus en sus d'une manivelle à un bout et à l'autre d'un volant, auquel une tige 10 est articulée de manière qu'un mouvement de rotation puisse être imprimé aux dits rouleaux par une pédale 9 convenablement fixée à la machine, le tout tel que décrit et pour les fins indiquées.

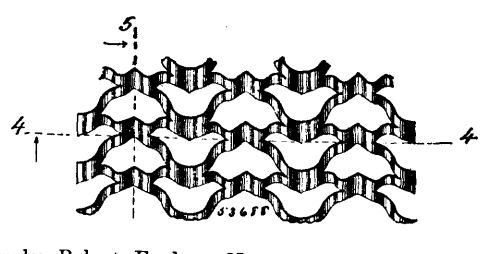
No. 53,687. Heating Drum. (*Poêle sourd.*)



Clayton Millard Richardson, Winnipeg, Manitoba, 7th October, 1896 ; 6 years. (Filed 26th August, 1896.)

Claim.—1st. In a heating drum, section Z, comprising subsection E, having circular vertical sides, bottom 1^a, apertures 20 above the bottom 1^a, apertures 26 below the bottom 1^a, and vertical pipe 2^a, in combination with subsection D, having a top provided with an opening and a collar on which 4^a is placed, aperture 21 around and to which pipe 2^a is connected, bottom *b* having an opening through which pipe 2^a passes, and vertical baffle plate 3^a extending from the side to pipe 2^a, substantially as and for the purpose hereinbefore set forth. 2nd. In a heating drum, a return pipe 4^a, having a partition *e* across its centre, substantially as set forth. 3rd. In a heating drum, section C, comprising the vertical sides preferably circular in form, having a pipe collar 18 on the outside, a top having an opening surrounded by a collar on which pipe 7^a rests, a bottom having an opening surrounded by a collar which rests in pipe 4^a, a partition across the centre, and a damper 5^a which slides on said partition, all arranged and combined substantially as and for the purpose set forth. 4th. In a heating drum, section B, comprising circular vertical sides, a top having an opening surrounded by a collar on which pipe 11 rests, a bottom having an opening surrounded by a collar which rests on a pipe 7^a, and a vertical partition 8 extending across the inside centre to near each opposite side, all formed and arranged substantially as and for the purpose hereinbefore set forth. 5th. In a heating drum, section A, of the outward form shown, having an opening surrounded by a collar which rests in pipe 11, and the U baffle plates 12 set in from the outside, substantially as and for the purpose set forth. 6th. In a heating drum, comprised by two or more removable sections, a sliding pipe consisting of two telescoping parts 9 and 10, the inner part 10 being attached to the inside of a section at the top and surrounding the outlet opening, the other part 9 having attached thereto rod K, with which to raise and lower said part, substantially as and for the purpose hereinbefore set forth. 7th. A heating drum comprised of two or more removable sections connected together by pipes forming inlets and outlets out of alignment with each other, substantially as and for the purpose hereinbefore set forth.

No, 53,688. Metallic Lathing. (*Claire-voie métallique.*)



Alexander Roberts Fordyce, Newark, New Jersey, U.S.A., 7th October, 1896 ; 6 years. (Filed 17th September, 1896.)

Claim.—1st. A lathing consisting of a metallic plate having corrugated keys projecting therefrom, the corrugations extending long-

itudinally through the said keys, substantially as described. 2nd. A lathing consisting of a corrugated metallic plate, slitted and expanded, the corrugations extending through the slitted portion of the plate and at right angles to the general direction taken by the slits, substantially as described. 3rd. A lathing consisting of a corrugated metallic plate provided with rows of angular slits which break joint, and expanded to throw keys from opposite sides of the plate, substantially as described. 4th. A lathing consisting of a metallic plate provided with rows of angular slits, which break joint, and expanded to throw keys from opposite sides of the plates substantially as described. 5th. A lathing consisting of a metallic plate having corrugated keys projecting from the opposite sides thereof and pointing in opposite directions, substantially as described. 6th. A lathing consisting of a metallic plate having corrugated keys projecting from the same in alternate rows on opposite sides and pointing in opposite directions, substantially as described. 7th. In a metallic lathing, the combination of the corrugated keys and the corrugated ribs connecting the same, substantially as described.

No. 53,689. Electric Signal for Railway Trains.

(Signal électrique pour trains de chemin fer.)

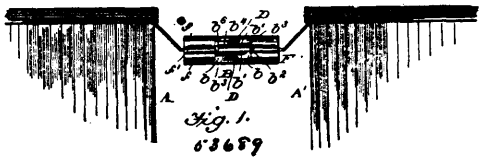


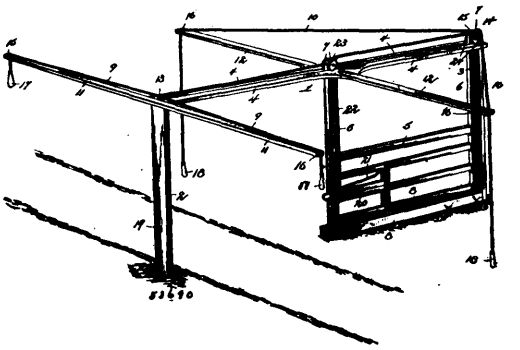
Fig. 1.

53689

Edward James Devine, Montreal, Quebec, Canada, 7th October, 1896; 6 years. (Filed 19th September, 1896.)

Claim.—1st. The herein described improvement in train signals, consisting of three wires in each car connected in series, and signals, batteries and circuit closing devices at each end of the train connected to said wires, and circuit closers intermediate of the ends of said train whereby signals may be given from one end of the train to the other and also at both ends of said train from intermediate points, as set forth. 2nd. The herein described improvement in train signals, consisting of three wires in each car connected in series, signals, batteries, and circuit closing devices at each end of the train connected to said wires, and couplings for said wires between said cars having short-circuiting devices designed to be operated upon the separation of any one of said couplings, substantially as set forth. 3rd. In a train signal having a series of wires in each car, a coupling for said wires between said cars, composed of two parts or members having interlocking plates to which said wires are connected, and short-circuit closers carried by said parts or members and designed to engage said plates when said parts or members are separated, as set forth. 4th. In a train signal having a series of wires in each car, a coupling for said wires between said cars, composed of two parts or members having interlocking plates to which said wires are connected, and arms or levers pivotally mounted on said parts or members and having contact portions designed to engage the respective plates of said parts when the latter are separated, as set forth. 5th. In a train signal having a series of wires in each car, a coupling for said wires between said cars, composed of two parts or members having each a series of U-shape plates designed to interlock, said wires being connected to said plates, non-conducting blocks securing said U-shape plates, and levers mounted on said parts or members and designed to engage the said blocks of the other part or member when the latter are being coupled, and to engage said plates when said parts or members are separated, substantially as set forth. 6th. In a train signal having a series of wires in each car, a coupling for said wires between said cars, composed of two parts or members having each a series of U-shape plates designed to interlock, said wires being connected to said plates, non-conducting blocks securing said U-shape plates, keepers inclosing said blocks, levers fulcrumed on said keepers, and springs bearing against said levers, said levers at their outer ends being designed to engage said U-shape plates when said parts or members are separated, substantially as set forth. 7th. In a train signal having a series of wires in each car, a coupling formed in two parts or members having each a series of interlocking plates to which said wires are connected, non-conducting blocks holding said plates and having projecting portions, spring-pressed levers mounted on said parts or members, and having contact portions designed to engage said plates when said parts or members are separated and which engage said projecting portions of said blocks when said parts or members are united, substantially as set forth. 8th. In a train signal having couplings for the wires between the cars, inclosing tubes for said couplings composed of two semi-cylindrical sections having interlocking portions, as set forth. 9th. In a train having couplings for the wires between the cars, inclosing tubes for said couplings composed of two semi-cylindrical sections attached each at one end to said coupling and provided with flanged and grooved edges designed to interlocked, substantially as set forth. 10th. In a train signal, a series of wires in each car, couplings therefor, and circuit closers to which said wires are connected, said circuit closers having a movable member and two stationary members, and means for operating said movable member at any point in a car, substantially as set forth. 11th. In a train signal, a series of three wires in each car, couplings therefor, two arms to which said wires are connected, and a pivoted member to which the third wire is connected, said member being designed to contact with said arms, substantially as set forth. 12th. In a train signal, a series of three wires in each car, couplings therefor, two spring-arms to which two of said wires are connected, a lever to which the third wire is attached, a spring acting on said lever, an operating cord or rope, and signals at the ends of the train, substantially as set forth.

No. 53,690. Gate. *(Barrière.)*



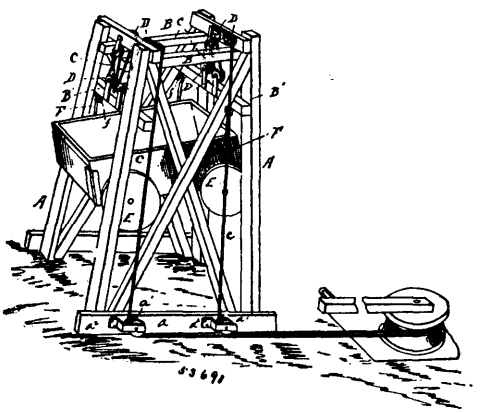
53690

Rior G. Stingley, Franklin, Oregon, U.S.A., 7th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—The combination of a supporting-frame provided at its top with track-bars having horizontal treads and provided at their rear ends with recesses lying below the tread of the track-bars and forming shoulders or stops at their front sides, a sliding gate depending from the track-bars and provided with rollers arranged on the latter and adapted, when the gate is open, to engage the said recesses to prevent the gate from closing, the front and rear guides mounted on the supporting-frame at the top thereof and located at the ends of the track-bars, the front and rear operating-ropes located above the track-bars, arranged in pairs and connected with the front of the gate and extending forward and rearward therefrom to the ends of the track-bars and passing through the said guides and extending from opposite sides of the gate, the front and rear parallel supporting-arms arranged in pairs and extending from each side of the supporting-frame and receiving the outer terminals of the operating-ropes, and a latch mounted on the gate and connected with the operating-ropes, substantially as and for the purpose described.

No. 53,691. Hoists and Dumps for Grain and Coal.

(Elévateur et appareil à bascule pour grain et charbon.)



53691

Peter Muller, Table Rock, Nebraska, U.S.A., 7th October, 1896; 6 years. (Filed 16th September, 1896.)

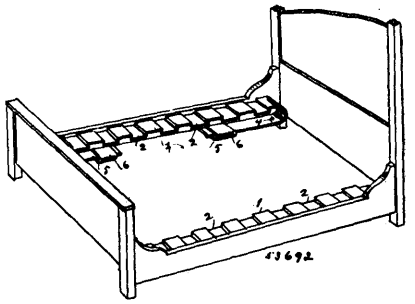
Claim.—The movable cross-bars B^1 B^1 and the rods F pivotally connected therewith, the said rods having bent ends to connect detachably with the wheels of wagon, in combination with the frame A having the front higher than the rear, a system of pulleys arranged substantially as shown, and ropes carried over and under the pulleys as set forth.

No. 53,692. Spring Bedstead. *(Sommier de couchette.)*

William M. Jones, Cerro Gordo, Tennessee, U.S.A., 7th October, 1896; 6 years. (Filed 16th September, 1896.)

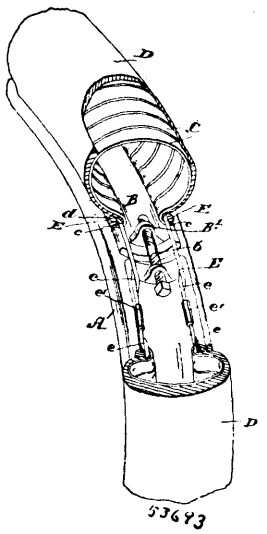
Claim.—1st. In a spring bedstead, the combination with side rails, of brackets secured to the side rails, and a pair of longitudinally-disposed slat-supports arranged adjacent to the side rails and com-

prising horizontal body portions provided with slat-receiving recesses, and substantially U-shaped resilient end portions extend-



ing beneath the body portions and supported by the said brackets, substantially as described. 2nd. In a spring bedstead, the combination with side rails, of brackets secured to the side rails and provided with horizontal arms or portions having openings, and longitudinally disposed slat-supporting springs provided at intervals with slat-receiving recesses and having their end portions bent downward beneath them and extended longitudinally of the springs, and arranged in the openings of the brackets, substantially as described.

No. 53,693. Bicycle Tire. (*Bandage de bicycle.*)

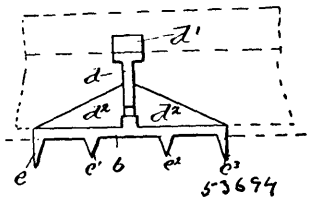


Charles Johnston Reeves, James W. Chambers, William T. McMullen and William L. Mackay, all of Woodstock, Ontario, Canada, 8th October, 1896; 6 years. (Filed 17th September, 1896.)

Claim.—1st. In a tire for bicycles and wheels, in combination a rim and a plurality of adjacent substantially circular spring sections arc-shaped with free ends and means for fastening such free ends to the rim, as and for the purpose specified. 2nd. In a tire for bicycles and wheels, in combination a rim, a supplemental rim connected thereto and a plurality of adjacent substantially circular spring sections having free ends and means for fastening them to the supplemental rim, as and for the purpose specified. 3rd. In a tire for bicycles and wheels, in combination a rim, a supplemental rim connected thereto and a plurality of adjacent substantially circular spring sections having reverse S-shaped ends, the lower hook of the S extending beneath the edges of the supplemental rim, as and for the purpose specified. 4th. In a tire for bicycles and wheels, in combination a rim, a supplemental divided rim connected thereto and a plurality of adjacent substantially circular spring sections and lugs formed on the ends of the divided rim having threaded holes in them and the right and left hand threaded bolt designed to extend through the holes, as and for the purpose specified. 5th. In a tire for bicycles and wheels, in combination a rim, a supplemental rim connected thereto and a plurality of adjacent substantially circular spring sections having reverse S-shaped ends, the lower hook of the S extending beneath the edges of the supplemental rim and an envelope extending entirely around the periphery of the tire formed by the sections and means for securing the inner edges of the envelope within the upper hook of the S-shaped free ends of the sections, as and for the purpose specified. 6th, In a tire for bicycles and wheels, in combination a rim, a supplemental rim connected thereto and a plurality of adjacent substantially circular spring sections having reverse S-shaped ends, the lower hook of the S extending beneath the edges of the supplemental rim, an envelope extending entirely around the periphery of the tire formed by the sections and beads formed to the edges of the envelope and wires extending within the edges of the bead and means for adjustably fastening the ends of the wires together, as and for the purpose specified. 7th. In a tire for bicycles and wheels, in combination a rim, a supplemental rim connected thereto and a plurality of adjacent substantially circular spring sections having reverse S-shaped ends, the lower hook of the S extending beneath the edges of the supplemental rim, an envelope extending entirely around the periphery of the tire formed by the sections, beads formed on the edges of the envelope and wires extending within the edges of the bead and offset ends to the wires with right and left hand threads and a turnbuckle with corresponding threads designed to fit on such ends, as and for the purpose specified.

No. 53,694. Tie Plate.

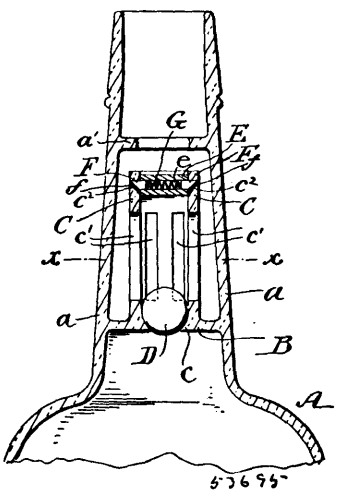
(*Plaque pour traverse de chemin de fer.*)



Frank Elden Came, Montreal, Quebec, Canada, assignee of Benjamin Reece, Chicago, Illinois, U.S.A., 8th October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—1st. A tie plate having the flanges d d^1, d^2 and d^3 on the underside thereof. 2nd. A tie plate having a rib and a web section extending in line with each other and longitudinally of such tie plate, a sufficient space being left between the adjacent ends of said rib and flange to accomodate the foot flange of the rail and said first mentioned flange being adapted to brace said rail, and means for securing such plate to the tie, for the purpose set forth. 3rd. A tie plate having a rib and a web section extending in line with each other and longitudinally of such tie plate, a sufficient space being left between the adjacent ends of said rib and flange to accomodate the foot flange of the rail and said first mentioned flange being adapted to brace said rail, means for securing such plate to the tie, and longitudinal flanges upon the under side of such plate, for the purpose set forth. 4th. A tie plate having a rib c and a web section d having depressed corner d^1 and bracing lateral flanges d^2 d^3, said rib c and web section d extending in line with one another and longitudinally of one face of said plate, apertures e e through the plate and flanges e^1 e^2 and e^3 located upon the underside of such plate, as and for the purpose set forth.

No. 53,695. Bottle. (*Bouteille.*)



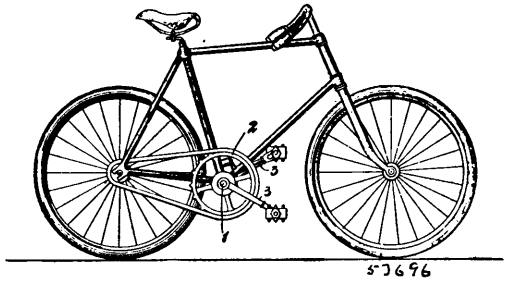
William Kampfer and Henry Woltmann, both of Brooklyn, New York, U.S.A., 8th October, 1896; 6 years. (Filed 12th September, 1896.)

Claim.—1st. A bottle having a partition located across the neck thereof, said partition having a valve seat therein, and a cylinder projected therefrom, and a valve engaging with the said seat, said cylinder having openings through the sides thereof, and a plug securely fastened in the outlet portion thereof, substantially as shown

and described. 2nd. The combination with a bottle neck of a partition formed integrally therewith, which partition has a cylinder projecting upwardly therefrom, and a ball valve engaging with a seat formed in the lower end of the said cylinder, and a plug secured to the upper end of said cylinder by means of spring pressed bolts, said cylinder having openings through the side walls thereof for outlet of fluid, substantially as shown and described. 3rd. The combination of a bottle having a partition formed in the neck thereof, and a cylinder projected upwardly from said partition, and an annular projection forming part of said neck, said cylinder having a valve seat and a ball valve located therein, and outlet openings formed through the walls thereof, with a plug for closing the upper end of the said cylinder, said plug having spring pressed bolts therein, which engage with recesses formed within the said cylinder, substantially as shown and described.

No. 53,696. Drive Gear for Bicycles.

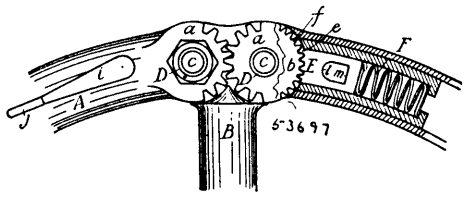
(*Engrenage de bicycles.*)



Duncan Campbell McCaig and Gideon Boyd Housser, both of Portage la Prairie, Manitoba, 8th October, 1896; 6 years. (Filed 17th September, 1896.)

Claim.—1st. A drive gear for a bicycle, comprising a drive shaft, a sprocket wheel rigidly mounted thereon, pedal cranks mounted on the ends of said shaft and adapted to rotate in one direction relatively thereto, a clutch mechanism between the pedal levers and driving shaft, and connections between the two pedal levers, whereby one is moved upward as the other is moved downward, substantially as specified. 2nd. A drive gear for a bicycle, comprising a drive shaft, a sprocket wheel rigidly mounted thereon, ratchet teeth formed around the ends of said shaft, pedal levers loosely mounted on the ends of said shaft, spring-impelled dogs carried by the levers for engaging the said ratchet teeth, and connection between the two pedal levers, whereby one is moved upward as the other one is moved downward, substantially as specified. 3rd. The combination of a shaft, having a recess in its side, a clutch member movable within the recess, a spring in the recess and pressing the clutch, and a crank loose on the shaft and against which the clutch member is pressed, substantially as described. 4th. A bicycle driving gear, comprising a driving shaft, a sprocket wheel mounted thereon, pedal levers loosely mounted on the ends of said driving shaft, clutch mechanism between said levers and the driving shaft, a lever pivotally connected with the bicycle frame, rods having pivotal connection with the bearing for the driving shaft, the said shafts being connected at their outer ends to the pedal levers, near the outer ends of said pedal levers, and links pivotally connected to the end of the lever fulcrumed on the frame and having their lower ends pivotally connected to the said rods near their connection with the bearing for the drive shaft, substantially as specified.

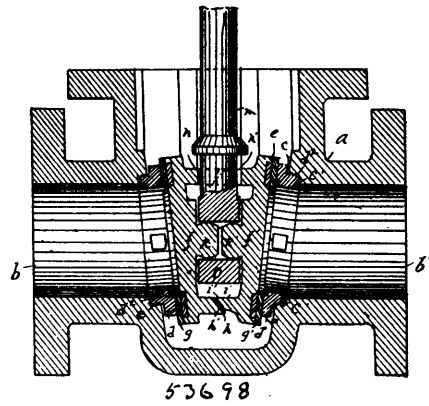
No. 53,697. Bicycle Handle. (*Manche de bicycles.*)



Robert Scott Anderson, Toronto, Ontario, Canada, 8th October, 1896; 6 years. (Filed 5th September, 1896.)

Claim.—1st. In combination with a movable handle bar having a locking bolt in or along the same, a lug upon the stem indented towards the handles, the end of the locking bolt toward the stem being adapted to engage with the indentations on the lug, substantially as described. 2nd. An adjustable handle bar, the two halves or arms of which move upon separate axes, the ends of the arms being indented and engaging with each other, substantially as described. 3rd. A movable handle bar, the two halves or arms of which move upon separate axes, the ends of the arms being indented and engaging with each other in combination with a lug formed on or attached to the stem indented outwardly toward the handles and a locking bolt within or along the arm, having the end toward the stem adapted to engage with the indentations upon the lug, substantially as described. 4th. An adjustable handle bar, the two halves or arms of which move upon separate axes, the ends of the arms indented and engaging with each other in combination with a lug formed on or attached to the stem indented outwardly toward the handles, and a locking bolt within or along the arm having the end thereof toward the stem indented to engage with the indentations upon the lug and operated by an excentric or cam, substantially as described. 5th. An adjustable handle bar, the two halves or arms of which move upon separate axes, the ends of the arms being indented and engaging with each other and a lug on the stem, indented outwardly toward the handles and locking bolt within or along the arm having the end toward the stem adapted to engage with the indentations upon the lug and a suitable excentric cam with lever attachment for operating the same, substantially as described. 6th. In a bicycle, in combination with the handle bar stem and the revolving or rotating ends of the handle bar and the lug, the bolt E with its concaved and toothed end *e* and opening *g* the spring G, the teeth *f f* on the lug B, the excentric or cam H with its extension lever and thumb piece *j*, substantially as and for the purpose described.

No. 53,698. Gate Valve. (*Soupape.*)

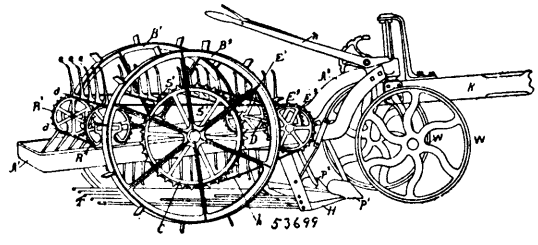


William H. H. Sheets, Pittsburg, Pennsylvania, U.S.A., 8th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—1st. A gate-valve having a disc formed of two separate halves, one of said halves having a curved bearing-face and the other having a bevelled bearing-face, said faces engaging one another, substantially as and for the purposes set forth. 2nd. A gate-valve having a disc composed of two separate halves, said halves have inwardly-projecting flanges, the flange of one of said having a curved bearing-face, and the flange of the other having a bevelled-face, said faces engaging with one another, said flanges being larger at the upper end of said disc halves and gradually tapering to a smaller width at the lower end thereof, substantially as and for the purposes set forth. 3rd. A gate-valve having a disc composed of two separate halves, one of said halves having a curved bearing-face and the other of said halves having a bevelled bearing-face, said faces engaging with one another, bosses on said halves, said bosses having curved bearing-faces, and a valve stem having a ring with a straight inner face engaging said bosses, substantially as and for the purposes set forth. 4th. In a gate-valve, the combination with a suitable shell, or casing, having a tapering valve-seat, of a valve-disc composed of two separate halves adapted to enter said seat, said valves having inwardly-projecting flanges with faces inclined transversely from edge to edge, one of said faces being curved, said flanges being in contact with each other, substantially as set forth.

No. 53,699. Machine for Digging Potatoes.

(*Machine pour arracher les patates.*)

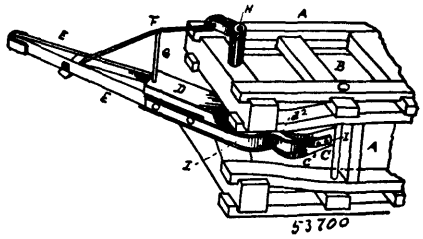


Joseph Tuer, Thompsonville, Ontario, Canada, 8th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—1st. In a potato plough the combination of the endless chain rakes *a*, *a*, *a*, and screen T, substantially as and for the pur-

pose hereinbefore set forth. 2nd. In a potato plough the combination of the hoe points P^1 P^2 and double share point H, substantially as and for the purpose hereinbefore set forth.

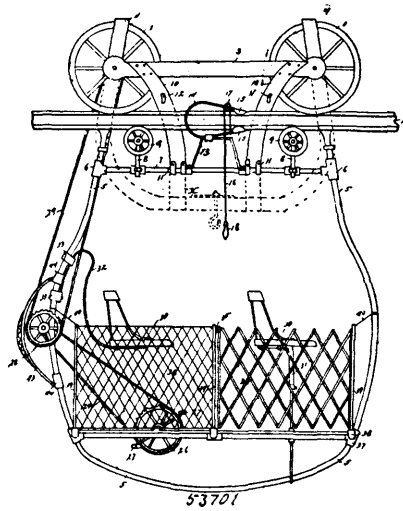
No. 53,700. Baling Press. (*Presse d'empaquetage.*)



John Major Bishop, Huntsville, Alabama, U.S.A., 8th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—In the operative mechanism of baling-presses, two toggle-arms having play on their joint-pins, and provided with rounded convex heads, one head having a concavity and the other convexity whereby a maximum of power is obtained with a minimum of strain on the joint-pins, while the mechanism works with a continuously smooth action, substantially as shown and described.

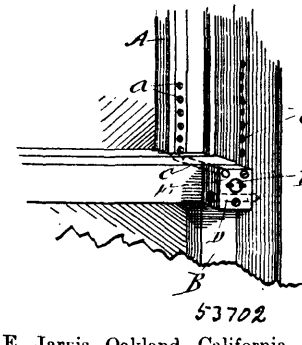
No. 53,701. Elevated Cycle and Car Railway.
(*Chemin de fer aérien.*)



William H. Martin, Mobile, Alabama, U.S.A., 8th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—1st. In an elevated track, the combination with the cycle frame, and wheels, of the equalizing straps or braces extended from an upper portion of the cycle frame, above the track to a portion of said frame below the track and adapted to equalize the weight on both ends of the cycle axles, enabling the truck to support heavy weights with depending U-shaped frame showing the seats of riders and manner in which the vehicle is propelled, and the protecting frame around the rider when the vehicle is in motion, the double headed rail on which the wheels operate, substantially as described. 2nd. In an elevated track, the combination with the cycle frame or truck comprising upper and lower horizontal bars or rods, of the equalizing straps or braces extended from the upper bar on one side of the cycle downward and outward above the track, and then to the lower bar or rod of said frame, beneath the track, and adapted to equalize the weight on both ends of the cycle axles, and safety devices carried by the said equalizing braces to engage the track in event of derailment with a depending U-shaped frame showing the seats of riders and manner in which vehicle is propelled, and the protecting frame around the rider when the vehicle is in motion, substantially as described. 3rd. In an elevated track cycle, the combination with the traction wheels and their axles, and the longitudinal bars connecting said axles, of the yokes mounted on said axles to straddle the wheels, and each having an arm extending down on one side of and below the track, a yoke frame suspended from the lower ends of said arms, a longitudinally extended brace rod connecting the front and rear upper ends of said suspended yoke frame, guide rollers supported by said brace rod and engaged with the under side of the track, and equalizing straps or braces connecting said brace rod with the upper portion of the cycle frame and adapted to equalize the weight on the ends of the cycle axles, with a depending U-shaped frame showing the seats of riders and manner in which vehicle is propelled, and the protecting frame around the rider when the vehicle is in motion, substantially as described. 4th. In an elevated track cycle and truck, the combination with the cycle frame supported on the axles of the traction wheels and suspended on one side of the track, of the equalizing braces or straps extended from an upper portion of said frame to a lower portion, and adapted to equalize the weight on the ends of the axles, and safety stops secured to and projecting from said braces to engage the track and arrest the fall of the cycle in event of derailment, with a depending U-shaped frame showing the seats of riders, and manner in which the vehicle is propelled, and the protecting frame around the rider when the vehicle is in motion, substantially as described. 5th. In an elevated track cycle or truck, the combination with the cycle frame and track flanged at top and bottom, of a spring yoke supported by the cycle frame and carring a brake shoe on one end of each arm, one of said brake shoes being adapted to clasp the top of the track rail and the other adapted to clasp the bottom of said rail, and a cord and pulley for actuating the yoke arm to apply the brakes with a depending U-shaped frame showing seats of riders and manner in which vehicle is propelled, and the protecting frame around the rider when the vehicle is in motion, substantially as described. 6th. In an elevated track cycle, the combination of the traction wheels, the yoke frames suspended from the wheel axles and connected by upper and lower longitudinal bars, the braces connecting said bars and adapted to equalize the weight on the ends of the axles, and the spring yoke shaped brake appliance, carried by the cycle frame and provided with operating mechanism whereby it is adapted to clasp the track rail at top and bottom with a depending U-shaped frame showing the seats of riders and manner in which vehicle is propelled, and the protecting frame around the rider when the vehicle is in motion, substantially as described. 7th. In an elevated cycle railway, the combination of a track composed of double headed rails connected by fish bars and secured to brackets projecting from the cross-arms of uprights or posts, with a cycle or cars having a frame suspended from the axles on the traction wheels and depending on one side of and below the track with a depending U-shaped frame showing the shape of trucks and manner in which cars are suspended, substantially as described. 8th. In a carriage for an elevated railway, the combination of the depending frame 5, the bed or platform in said carriage consisting of horizontal and transverse tubes or bars, the inclosures formed therearound by means of the screen 36 and pivoted bars 34, the collars 33 mounted upon the rear portion of said frame, the spring 32 supporting the seat and adapted to be clamped in said collars, the sprocket-wheel journalled in the rear portion of the platform of said car, the driving cranks and pedals mounted upon the axle of said sprocket-wheel, the counter shaft pivoted to the rear portion of frame 5, the sprocket-wheel 28 on one end of said countershaft and the pinion on the opposite end, sprocket-chains 29 and 29^1, adapted to transmit motion and power from the drive sprocket-wheel 26 to the traction wheel 1, the buffer mounted around the rear portion of sprocket-wheel 28, and the seat 30 suitably secured in the front end of said carriage, substantially as shown and described.

No. 53,702. Sash Fastener. (*Arrête-croisée.*)

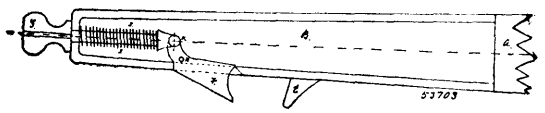


Frederick E. Jarvis, Oakland, California, U.S.A., 8th October, 1896; 6 years. (Filed 12th September, 1896.)

Claim.—1st. A lock for windows consisting of spring-actuated bolts slidable at right angles with each other in a case which is secured to the lower sash, one of said bolts engaging the window casing to lock the lower sash, the other slidable transversely to the lower sash and engaging the upper sash, a rotatable spindle having a cam-groove for engaging and withdrawing one of the bolts and releasing its sash, and means for substantially engaging the other bolt and retracting it. 2nd. In a window lock, spring-actuated bolts movable at right angles with each other, one of said bolts engaging holes so as to lock the lower sash, and the other to lock the upper sash, a spindle having a cam adapted to engage a lug upon one of the bolts whereby the upper sas is released, and arms engaging the lower bolt to release the lower sash, a case within which the mechanism is contained having a lug upon its cover, an elostic arm upon the spindle adapted to engage the lug to prevent the turning of the spindle, a key having wards adapted to enter slots in the exposed end of the spindle and first disengage the arm from the stop-lug, so that the spindle may be turned to withdraw the bolts.

No. 53,703. Neckyokes and Tongues.

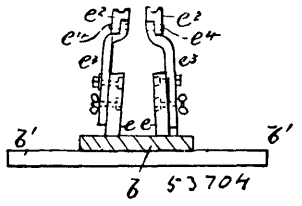
(*Volée d'avant et armon.*)



Arthur Frederick Montford Brooke, Calgary, North-west Territories, 8th October, 1896; 6 years. (Filed 11th September, 1896.)

Claim.—The combination of F, G, H, I, J and K, substantially as for the purpose hereinbefore set forth.

No. 53,704. Bicycle Stand. (*Support pour bicycles.*)



Joshua Henshaw, Montreal, Quebec, Canada, 8th October, 1896; 6 years. (Filed 8th September, 1896.)

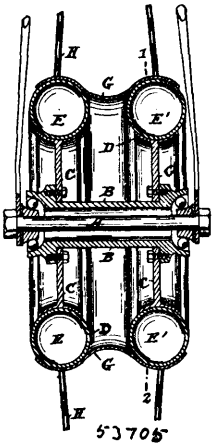
Claim.—1st. A stand comprising means for supporting a bicycle with the wheels thereof rotatable, for the purpose set forth. 2nd. A stand comprising means for supporting a bicycle with the wheels thereof rotatable and means for maintaining said stand in a vertical position, for the purpose set forth. 3rd. A stand adapted to support a bicycle through contact with the frame thereof, for the purpose set forth. 4th. A stand adapted to support a bicycle through contact with the frame thereof, and means for maintaining the stand in a vertical position, for the purpose set forth. 5th. In a bicycle stand, the combination with a base of a series of standards adapted to receive and retain the bicycle frame, for the purpose set forth. 6th. In a bicycle stand, the combination with an oblong rectangular base, of a standard secured to said base at the forward end thereof and having its upper end grooved longitudinally of said base and bevelled and adapted to support the forward portion of the bicycle frame, a second standard secured to said base about midway of the length thereof in line with said first-mentioned standard and formed at its upper end with a recess adapted to receive the lower central portion of the bicycle frame, a third standard located in line with said first and second-mentioned standards and at the rear of said base, said rear standard consisting of a pair of uprights secured at their lower ends to said base and inclined towards one another and having their upper ends bevelled and grooved and adapted to support the horizontal fork of the bicycle frame, and laterally extending sections from said base, for the purpose set forth. 7th. In a bicycle stand, the combination with an oblong rectangular base, of a standard secured to said base at the forward end thereof and having its upper end grooved longitudinally of said base and bevelled and adapted to support the forward portion of the bicycle frame, a second standard secured to said base about midway of the length thereof in line with said first-mentioned standard and formed at its upper end with a recess adapted to receive the lower central portion of the bicycle frame, a third standard located in line with said first and second-mentioned standards and at the rear of said base, said rear standard consisting of a pair of uprights secured at their lower ends to said base and inclined towards one another and having their upper ends bevelled and grooved and adapted to support the horizontal fork of the bicycle frame, laterally extending sections from said base, and anti-friction material carried upon the bicycle supporting surface of each of said standards, for the purpose set forth. 8th. In a bicycle stand, the combination with a base, of a series of vertically adjustable standards adapted to receive and retain the bicycle frame with the driving gear of such bicycle free to be worked, for the purpose set forth. 9th. In a bicycle stand, the combination with a base, of a series of vertically adjustable standards provided with adjustable upper ends adapted to receive and retain the bicycle frame with the driving gear of such bicycle free to be worked, for the purpose set forth. 10th. In a bicycle stand, the combination with a base, of a series of vertically adjustable standards provided with pivotally adjustable upper ends adapted to receive and retain the bicycle frame with the driving gear of such bicycle free to be worked, for the purpose set forth.

No. 53,705. Construction of Wheel for Vehicles.

(*Roue de voitures.*)

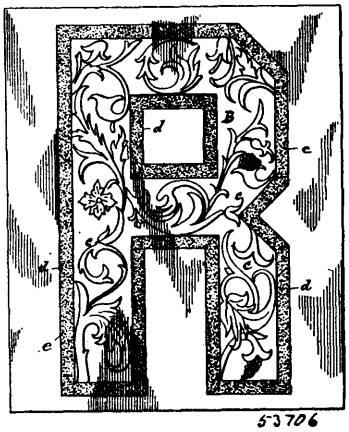
Archer Septimus Bowman, Strathfield, New South Wales, 8th October, 1896; 6 years. (Filed 5th September, 1896.)

Claim.—1st. In wheels of vehicles, the application, between the hub of the wheel and the spokes, of an annular pneumatic tube or cushion as herein described. 2nd. In wheels of vehicles, in combination, the hub of a wheel, a radial frame that is secured on the hub, a pneumatic ring or cushion that is placed upon such frame, a



metal ring that will secure the pneumatic cushion in its place on the radial frame, and the spokes, the inner end of which are secured to such metal ring as specified.

No. 53,706. Sign Letter. (*Lettre pour enseignes.*)



George James Bellamy Rodwell, Buffalo, assignee of Louis Gargare, New York, both in the State of New York, U.S.A., 9th October, 1896; 6 years. (Filed 13th December, 1895.)

Claim.—1st. A sign letter or character provided on its face or obverse side with a salient body portion or portions adapted to be cemented to a transparent plate and with a marginal rim or flange which is depressed below said salient body portion and which forms with the opposing surface of the transparent plate a recess or cavity adapted to receive an impervious filling, substantially as set forth. 2nd. The combination with a transparent plate, of a sign letter or character provided on its face or obverse side with a salient body portion or portions which are cemented to said transparent plate and with a marginal rim or flange which is depressed below said salient body portions, forming with the opposing side of the plate a recess extending around the edge of the latter, and an impervious filling arranged in said recess whereby the raised cemented portions of the letter within the depressed rim are protected, substantially as set forth.

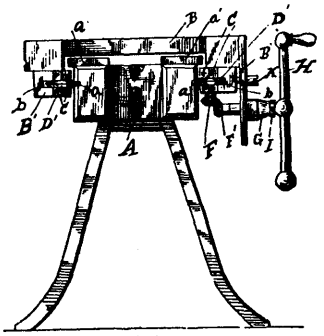
No. 53,707. Tool Carriage for Lathes.

(*Châssis d'outils pour tours.*)

David F. Cornell, North Fork, Pennsylvania, and John N. Paddock, Troupsburgh, New York, both in the U.S.A., 9th October, 1896; 6 years. (Filed 3rd August, 1896.)

Claim.—1st. The combination with the bed with its longitudinal grooves, of the carriage provided with guide rollers on vertical shafts, a bevelled pinion on one of said shafts, and a horizontal shaft carrying a bevelled pinion and a crank handle and a hexagonal nut on said shaft, substantially as and for the purposes specified. 2nd. The combination with the bed with its longitudinal grooves, of the carriage provided with guide rollers on vertical shafts, a bevelled pinion on one of said shafts and a horizontal shaft carrying a bevelled pinion and a crank handle, the apron in which the horizontal shaft is mounted having a long bearing through which said shaft passes and a hexagonal nut on said shaft adapted to engage said bearing, substantially as and for the purposes specified. 3rd. The combination

with the bed with its longitudinal grooves, of the carriage provided with guide rollers on vertical shafts, a bevelled pinion on one of said

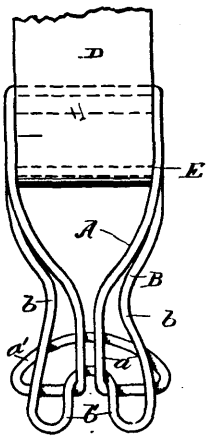


5-3707

shafts and a horizontal shaft carrying a bevelled pinion and a crank handle, and an apron secured to said carriage and provided with means for moving same back and forth and screws carried by said apron constructed and arranged to hold the carriage fast to the bed, substantially as and for the purposes specified.

No. 53,708. Clasp for Garment Supporters.

(*Agrafe pour supports de vêtements.*)



5-3708

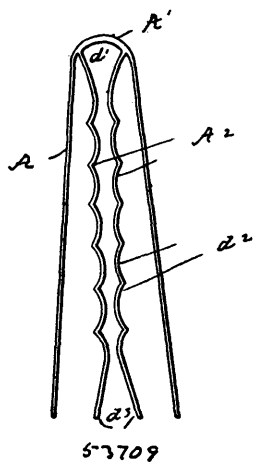
Andrew Thomson and James Drever, both of San Francisco, California, U.S.A., 9th October, 1896; 6 years. (Filed 12th August, 1896.)

Claim.—1st. A garment supporter clasp, consisting of a rear portion converging downward from the top to form a narrow neck at the bottom, thence curving outward and upward and diverged to form a wide segmental arc at the tip, a front portion with the bottom curved into an inverted U-form to interlock with the neck of the rear portion, and a connnecting plate to which the upper ends of the two sections are pivotally united. 2nd. A garment supporter clasp, consisting of two interlocking sections, the lower end of one being bent into a hook with a narrow neck and a wide arched tip, and the other into an inverted U-form adapted to slip inside the tip of the first and interlock with the neck thereof, a plate with the opposite ends of which the upper ends of the two sections are pivotally connected, the intermediate portion of said plate being made concave, so as to swing back between the sides of the first section when the two are interlocked. 3rd. A garment supporter, consisting of a clasp formed of two interlocking sections, the lower end of one being bent into a hook with a narrow neck and a wide tip, and the other into an inverted U-form adapted to slip inside the tip of the first and interlock with the neck thereof, a plate with which the upper ends of the two sections are flexibly connected, the intermediate portion of said plate being made concavo-convex so as to swing back between the sides of the first section when the two are interlocked, and a flexible strap inclosing the plate and stitched thereto.

No. 53,709. Hair Pin. (*Epingle à cheveux.*)

Louis Frederick Hock, Philadelphia, Pennsylvania, U.S.A., 9th October, 1896; 6 years. (Filed 19th September, 1896.)

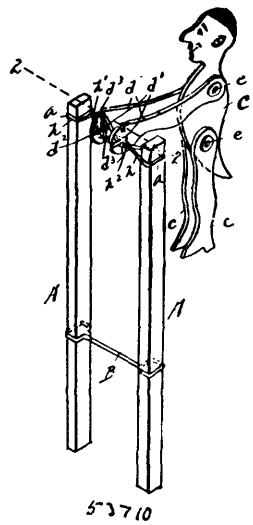
Claim.—1st. A hair pin having supplemental legs between the outer legs thereof extending from opposite ends of the arch or bend at the junction of the outer legs and arch and wavy in form, substantially as shown and described. 2nd. A hair pin having supplemental legs between the outer legs thereof extending from the arch or bend at the junction of said arch with the outer legs and



5-3709

integral with the same and wavy in form with their opposite ends divergent, substantially as shown and described.

No. 53,710. Toy. (*Jouet.*)



5-3710

Reuben A. Smith, East Weare, New Hampshire, U.S.A., 9th October, 1896; 6 years. (Filed 2nd September, 1896.)

Claim.—1st. In a device of the class described, a puppet arm having an arm formed in its extremity and a slot bifurcating the said extremity and leading into the aperture, the width of the slot being less than the diameter of the aperture, substantially as described. 2nd. In a device of the class described, the combination of the side pieces connected at intermediate points, the puppet arms, the extremity of each arm having an aperture formed therein and bifurcated by a slot leading into the aperture but of less width than the diameter of the said aperture, and also having notches radial to the aperture and at right angles to the slot, and the cord passing between the ends of the side pieces, wound around the bifurcations of one of the said arms and twisted as it passes through the aperture in the other arm, substantially as described.

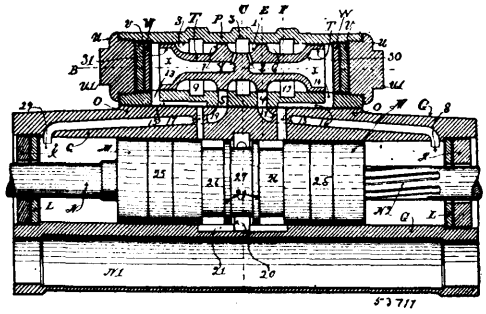
No. 53,711. Direct Acting Engine.

(*Machine à connection directe.*)

John George Leyner, Denver, Colorado, U.S.A., 9th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—1st. The combination with the cylinder and the piston, of a valve-chest having a cylindrical valve-seat in its bore, an expansive fluid inlet and outlet and circumferential recess forming ports in said bore connecting with said fluid inlet and outlet, a circular valve fitted to said chest, means for conducting the expansive fluid from the said fluid inlet port through the valve to the ends of said valve-chest and from its end through the cylinder and around the central portion of the piston to said exhaust ports and outlet and means on the piston head for intermittently opening and closing the passages leading to the ends of the valve-chest. 2nd. The combination with the cylinder, the valve-chest and the piston, of one or more

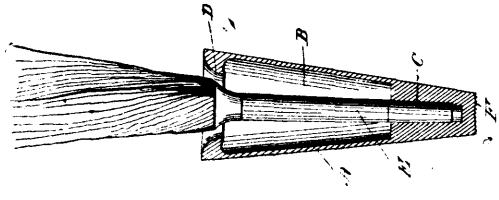
ring or collar portions on said piston at predetermined points whereby fluid passages are formed around it, a longitudinal recess in the



bore of said cylinder, a circumferential recess therein bisecting said longitudinal recess, and open to the exhaust outlet or atmosphere, passages formed in said cylinder extending to the ends of said valve-chest and adapted to register with the fluid passages in said piston, induction and exhaust ports in said valve-chest and cylinder, and a cylindrical valve in said valve-chest having fluid passages from its fluid inlet port to its ends arranged and adapted to be actuated by the expansive fluid to open and close said ports. 3rd. The combination of the cylinder having the exhaust recesses and passages, and the piston having the rings and reduced portions registering therewith and adapted to form passages from the valve-chest to the atmosphere. 4th. The combination of the cylinder, the exhaust recesses in the bore thereof, the piston having the rings and the reduced portions with the valve-chest and ports registering therewith and the valve adapted thereto. 5th. The combination of the cylinder, the piston, the valve-chest, the ports and the valve constructed and arranged substantially as herein set forth and described. 6th. The combination with the cylinder and the piston, of an independent valve-chest having exhaust passages leading from its ends to said cylinder and exhaust passages of different predetermined areas in the shell of said cylinder registering therewith and leading to its bore, for the purposes specified. 7th. The combination with the cylinder and the piston, of a valve-chest having a circular valve-seat or bore, a threaded inlet and outlet thereto, induction and exhaust ports leading to and from said cylinder and piston to the atmosphere, and a cylindrical valve having four circular seats and three intermediate reduced portions forming ports between said seats, holes extending into the ends of said valve and two small holes connecting its central or fluid inlet port with the said holes in its ends and with the ends of said chest and its exhaust ports whereby said valve is balanced and operated by alternate fluid pressure on its ends. 8th. The combination of the cylinder, the piston, the valve-chest and the valve having the main induction and exhaust ports, the expansive fluid passages in said valve from the fluid inlet portion to the ends of the chest, the exhaust holes in the ends of said chest, the slots in the bottom of said chest registering therewith, the differential holes through said cylinder registering with said slots, the independent circular portions and passages around the central portion of the piston adapted to register with the said differential holes, the intersecting longitudinal and circumferential recesses in the cylinder's bore, the holes leading therefrom to the said valve-chest, and the holes in said chest in the exhaust outlet registering with one of said last-mentioned holes, substantially as herein set forth and described.

No. 53,712. Drip Cup for Umbrellas.

(*Auger pour parapluies.*)

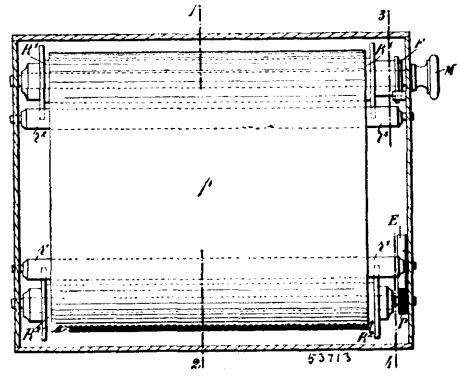


Thomas Dunne Husband, New York, State of New York, U.S.A., 9th October, 1896; 6 years. (Filed 16th October, 1896.)

Claim.—1st. A drip attachment for umbrellas, comprising a body portion which is slightly conical in form and provided with a central chamber or receptacle the upper end of which is open and the lower end of which is provided with a central bore which communicates with the chamber or receptacle whereby said device is adapted to be placed upon the lower end of the handle of an umbrella, substantially as shown and described. 2nd. A drip attachment for umbrellas, comprising a body portion which is slightly conical in form and provided with a central chamber or receptacle the upper end of which is open and the lower end of which is provided with a central bore which communicates with the chamber or receptacle whereby said device is adapted to be placed upon the lower end of the handle of an umbrella, and the upper end of said device being provided with an inwardly directed annular shoulder the upper walls of which are curved, substantially as shown and described.

No. 53,713. Stereoscope for Advertising.

(*Stéréoscope pour annonces.*)



Raoul Harilaos, Paris, France, 9th October, 1896; 6 years. (Filed 8th October, 1895.)

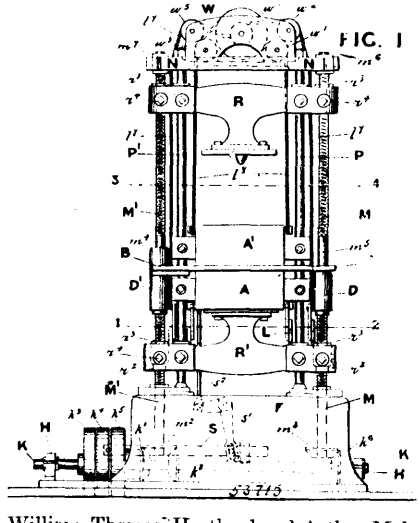
Claim.—1st. A stereoscope for advertising and for public use, comprising two rollers, a band wound upon said rollers, and carrying a series of views, a spring-drum geared to one of said rollers, and tending to wind the band in one direction, means for turning the other roller by hand, and a friction-brake pressing against said roller with sufficient force to more than balance the tension of the winding-spring and hold the rollers in any position to which they may be turned, substantially as described. 2nd. A stereoscope for advertising and the like, comprising the rollers R^1, R^2, the band P wound thereon, the guide-rollers r^1, r^2, the handle M on the roller R^1, the barrel-spring B, the toothed wheel E driven by said spring, the pinion P on the roller R^2 meshing with the wheel E, and the flat spring F pressing against the roller R^1, substantially as described.

No. 53,714. Liquid Compound for Closing Punctures in Inflated Wheel Tires. (*Composé liquide pour fermer les picqures dans les bandages de roues gonflés*)

William Lincoln Lyman, Eagle Pass, Texas, U.S.A., 9th October, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. A compound composed of boracic acid, carmel, suitable water, and a gummy substance, such, for instance, as dextrine, gelatine, gum arabic, gum mesquite, suitably mixed in suitable proportions, substantially as set forth. 2nd. A compound, composed of boracic acid, dextrine, gelatine, gum arabic, gum mesquite, carmel and suitable water, suitably mixed in approximately the proportions specified.

No, 53,715. Moulding Machine. (*Machine de moulage.*)

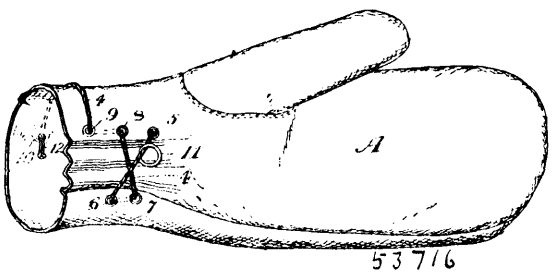


Frederick William Thomas Hartland and Arthur Malpas, both of West Bromwich, Stafford, England, 9th October, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. The improved moulding machine, consisting essentially of the guide pillars P P^1 and vertical screws M M^1, the upper

portion of a much coarser pitch than the lower, thereby operating the upper ram more rapidly than the lower in relation to the boxes and parts by means of the driving gear or its equivalent, in the manner substantially as described. 2nd. In moulding machines, the hinged pattern plate mounted upon spring bushes D D^1 adapted to be lifted out of the bottom mould thereby and arranged to swing out of the way on either one or the other of the said bushes, substantially as described. 3rd. In moulding machines, the moulding boxes mounted on guides P P^1 and levers L L^1, and their gearing for operating and separating the same, substantially as set forth. 4th. In moulding machines, the arrangement of the driving gear, consisting essentially of bevel wheels k^1 k^{11} gearing into a wheel m^{11}, and a bevel wheel k^6 gearing into a wheel $m^{1\,11}$ to operate the machine in the manner substantially as described. 5th. The moulding machine, consisting essentially of the compound screws M M^1 and guides P P^1 and pattern plate B, substantially as specified.

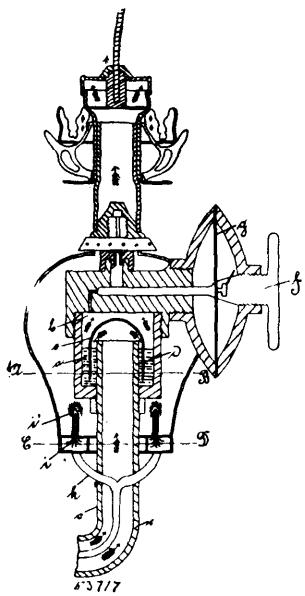
No. 53,716. Fastener for Mittens, Gloves, etc. (*Attache de mitaines, gants, etc.*)



Herbert Thomas Arnold, Acton, Ontario, Canada, 9th October, 1896; 6 years. (Filed 21st April, 1896.)

Claim.—1st. As a new article of manufacture, a mitten, glove or the like, having a constricting wrist attachment, composed essentially of a lace or cord 4 attached to the mitten or glove and passed through a series of eyelets in the said mitten, the said lace or cord having a ring 10 on its free end, and a hook 12 or catch engaging the said ring when the cord is drawn tight, substantially as described and for the purposes set forth. 2nd. In the fastener for mittens, gloves, etc., the combination with the lace or cord 4 secured by one end to the mitten or glove and passed through a series of eyelets, a ring 10 attached to the free end of the said cord or lace of the hook 12 secured to the said mitten or glove, and adapted to engage the said ring 10, substantially as set forth and described.

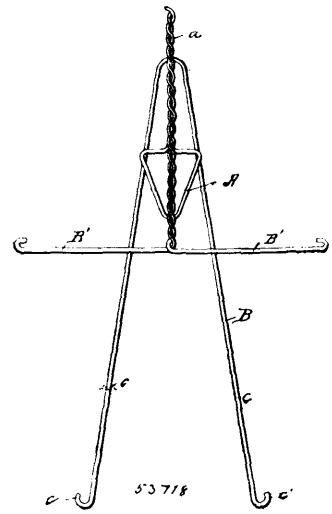
No. 53,717. Burner for Oil. (*Brûleur à huile.*)



Johann Mücke, Berlin, Germany, 9th October, 1896; 6 years. (Filed 3th August 1896.)

Claim.—1st. A process for gaining dry gas for illuminating, heating and other purposes, which consists in forcing the liquid fuel supplied from a reservoir through an interposed molten metal mass, substantially as described. 2nd. A gas burner having a feed pipe c extending into a chamber *b* containing a fusible metal mass and a bell arranged over the end of the said feed pipe in said chamber, substantially as described and for the purpose specified.

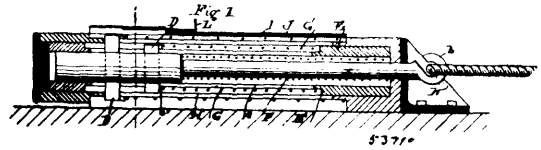
No. 53,718. Book Holder. (*Bibliothèque.*)



Samuel Bromley, Pembroke, Ontario, Canada, 9th October, 1896 6 years. (Filed 29th August, 1896.)

Claim.—1st. A book holder formed of a loop or wire for bearing against the back of a book, and a twisted stem provided with a spring clip for engaging with the top of the book and holding it open, substantially as set forth. 2nd. A book holder formed of a loop of wire provided with a twisted stem and a clip for engaging with the book, in combination with a stand formed of two diverging legs, engaging pivotally with a hole in the said stem, substantially as set forth. 3rd. A book holder formed of a loop of wire for bearing against the back of a book, a twisted stem forming a single spring clip and extending over the top of the book, and horizontal portions at the front and lower end of the said twisted stem, substantially as set forth.

No. 53,719. Tow Head, Tension Buffer or Attachment Devices for Use in Steamers, Barges, Steam Ploughs, etc. (*Tampon à tension pour touage ou attache à l'usage des vaisseaux à vapeur, barges, charrues, etc.*)

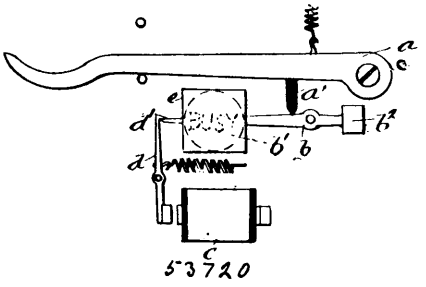


Drew Stretch, Litherland, Lancaster, England, 9th October, 1896; 6 years. (Filed 29th August, 1896.)

Claim.—1st. A tow head, tension buffer or attachment device for use on steamers, barges, steam ploughs and other structures towed, drawn or used for towing or drawing, consisting of a sliding draw bolt having springs arranged concentrically one round the other or one behind the other on the draw bar and each abutting against a separate or removable abutment, whereby each spring will act independently so that one, two or any number of springs can be used as required, substantially as described. 2nd. A towing head, tension buffer or attachment device for use on steamers, barges, steam ploughs and other structures towed, drawn or used for towing or drawing, consisting of a sliding draw bolt having a solid head or abutment at one end and an eye bolt or other attachment at the other for the rope and a coiled spring pressing against the sliding head aforesaid at one end and against a solid abutment at the other, in combination with an outer cylinder having a coiled spring, one end of which presses against a cotter or other abutment on the draw link head and the other against a projecting abutment on the cylinder, and one or more similar cylinders and springs each arranged concentrically and superimposed one around the other in succession, whereby each spring will act independently so that one, two or any number of the springs can be used as required, substantially as described. 3rd. In a towing head, tension buffer or attachment device on steamers, barges, steam ploughs and other structures in which two, three or more springs are arranged concentrically or one behind the other on a draw bar and each abutting against a separate abutment, the arrangement for varying the tension or compression of the springs to suit the strains likely to be brought upon them, namely providing the draw bar with cotters D or other suitable devices forming when in position points of abut-

ment for the springs to bear against, the said cotters or other devices being capable of being placed in position or removed from the draw bar as required, whereby one, two or any number of the springs can be brought into play or thrown out of connection.

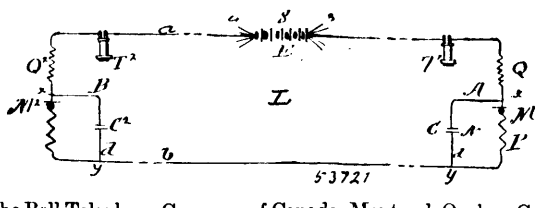
No. 53,720. Signal for Telephone Lines.
(*Signal pour lignes de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 9th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In combination, a switch lever of a telephone set, an indicator adapted to be set by the movement of the lever, a detent controlling the movement of the indicator and an electro magnet acting upon the detent, as described. 2nd. The combination with tht lever of an automatic telephone switch, of an indicator adapted to be set by the movement of the telephone switch, a detent adapted to engage the indicator, and an electro magnet controlling the detent as described. 3rd. In a telephone line extending to several different substations, the combination with a manually movable lever at each substation, of an indicator adapted to be set by the lever, a detent arranged to engage the indicator to determine its movement and electro magnet controlling the detent, and means for altering the magnetic condition of the electro magnet at every other substation when the telephone at one substation is brought into use, as described. 4th. The combination with the lever of a telephone switch, of a busy indicator adapted to follow the lever in its movement, a detent normally engaging the indicator to prevent its movement, and an electro magnet controlling the detent as described. 5th. In combination, a telephone line extending to several substations, a telephone switch lever at each station, a busy indicator adapted to follow the switch lever and thus to display its signal, a detent normally engaging the indicator, an electro magnet controlling the detent and a source of current and circuit connections adapted to cause the excitement of all the electro magnets during the use of the line, as described. 6th. In combination, the lever of a telephone switch, an indicator adapted to be set by the switch lever in its movement, a detent arranged to engage the indicator, and an electro magnet controlling the detent, a normally open branch of the line circuit including the electro magnet and switch contacts on the telephone switch for closing the circuit through said branch, as described. 7th. The combination with a metallic circuit telephone line connected with several substations, having its different line conductors normally separated, of a source of current connected with one line conductor, a telephone switch at each substation, an indicator adapted to be set by the lever in its movement, a detent engaging the indicator and an electro magnet controlling the detent, a ground branch from that line conductor with which no source of current is normally connected, including the electro magnet, switch contacts on the telephone switch controlling the continuity of the branch, and means for closing a bridge between the line conductors when any telephone is brought into use, as described. 8th. The combination with the lever of a telephone switch, of an indicator adapted to be set by the lever in its movement, and a detent for determining the movement of the indicator, the detent being carried on the stop lever of a lock out device as described.

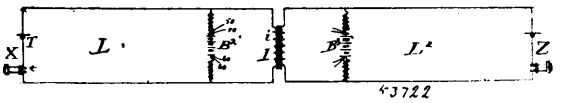
No. 53,721. System of Current Supply for Telephone Circuits. (*Système d'alimentation de courant pour circuits de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of John Stone, Stone, Boston, Massachusetts, U.S.A., 9th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In a central-battery telephone system, the combination at a substation, of the primary and secondary helices of an induction-coil, and the resistance-varying transmitter, all connected in series in a main-line telephone circuit containing the main transmitter-battery, and a condenser in a branch of the said main circuit shunting the said primary helix and transmitter, substantially as described. 2nd. In a centralized-battery telephone system, a main telephone-circuit, and a source of transmitter-current supply included therein, combined at a substation with a telephone-transmitter, an induction-coil and a condenser, the said transmitter and primary winding of the induction coil, and the condenser, respectively, being in parallel branches of the main circuit, and the secondary winding of the said induction-coil being also in the main circuit, and in series with the said parallel branches thereof. 3rd. The combination in a main-line battery telephone system, of a substation or local transmitting-circuit containing a telephone-transmitter, the primary winding of an induction coil, and a condenser, with a main telephone circuit containing a common source of current supply, and the secondary winding of the said induction-coil, the substation ends of the said main circuit being connected with the said local transmitter-circuit, one at a point between the primary winding and the condenser, and the other at a point between the transmitter and the condenser.

No. 53,722. Telephone Circuit. (*Circuit de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of John Stone Stone, Boston, Massachusetts, U.S.A., 9th October, 1896; 6 years. (Filed 21st August, 1896.)

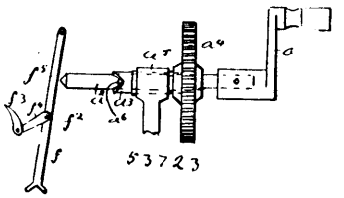
Claim.—1st. The combination with a telephone circuit, of a generator and a relay in a permanent bridge between the circuit conductors, the generator being interposed between the coils of the relay; and a local circuit including a battery, a line lamp-signal controlled by the relay, and means for shunting the signal when connection is made with the line, as set forth. 2nd The combination with a telephone circuit provided with means at the substation for closing the circuit, of a generator and relay in a permanent bridge between the circuit-conductors, the generator being interposed between the coils of the relay; and a local circuit including a battery, and a line lamp-signal controlled by the relay, and means for shunting and extinguishing the signal when connection is made with the line, as set forth. 3rd. The combination with a telephone circuit provided with means at the substation for closing the circuit; of a generator and a relay in a permanent bridge between the circuit conductors, the generator being interposed between the coils of the relay; a normally open local circuit grounded at both ends adapted to be closed by the relay, test-contacts in open-terminal spring-jacks and branches from the contacts to the local circuit; whereby when the circuit is closed at the substation the electrical condition of the test-contacts is changed, as set forth. 4th. The combination with a telephone circuit provided with means at the substation for closing the circuit; of a generator and a relay in a permanent bridge between the circuit-conductors, the generator being interposed between the coils of the relay; a normally open local circuit including a resistance, a battery, and a line lamp-signal controlled by the relay; test-contacts in open-terminal spring-jacks having branch connections to the local circuit; and a plug provided with a contact-ring connected to a disconnecting lamp-signal and to the local circuit, whereby when the plug is inserted in a jack the line lamp-signal is extinguished, and the electrical condition of the test-contacts is changed, as set forth. 5th. The combination of two telephone circuits looped together for conversation by plugs and cords which are inductively united by the two windings of a repeating-coil; each circuit having in a permanent bridge between its conductors a generator and a relay whose helices serve as impedances; a local circuit closed by the said relay and a shunted disconnecting lamp-signal in each plug-circuit, whereby upon the opening of either circuit at its substation the disconnecting lamp-signal will be lighted, as set forth. 6th. The combination with a substation telephone circuit and a circuit-changer located at the substation, and a battery and relay responsive to said circuit-changer bridged at the central station between the circuit-conductors; of a local signalling-circuit at the central station having two branches, one containing the call-signal and leading through contacts controlled by the said relay, and the other containing the disconnecting-signal, and leading through switch-plug and socket contacts; whereby when both branches are closed, the disconnecting-signal may be set when in response to the substation circuit-changer the relay branch contacts are separated substantially as specified.

No. 53,723. Call Counter for Telephones.
(*Comptoir d'appel pour téléphones.*)

The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Stephen Dudley Field, Stockbridge, Massachusetts, U.S.A., 9th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In a telephone-service register, the combination with recording mechanism and means for actuating the same set into operation by a movement of the telephone apparatus, an interposed link, normally in a non-operative position, for connecting said recording mechanism with its actuating means, and means for retard-

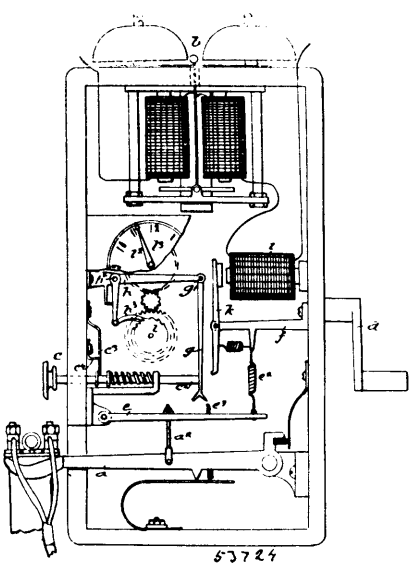
ing the movement of said link from its operative to its inoperative or normal position, substantially as described. 2nd. The combina-



tion with a lever controlled by a telephone-switch of a retractive spring acting thereon, retarded driven mechanism and a train of counter-wheels actuated by the driven mechanism, a key controlling the circuit of a calling-generator, and link mechanism actuated by the key to connect the said lever with the said driven mechanism, as described. 3rd. The combination with telephone-switch, of a lever moving therewith, and a retractive spring for the lever, a link normally out of engagement with the lever, a key controlling the circuit of the calling-generator adapted when moved to bring the said link into engagement with the lever, means for retarding the return movement of the link, the registering mechanism adapted to be impelled by the said retractive spring through the medium of the said link, as described. 4th. The combination with telephone-switch of an associated lever, a retractive spring for the lever, a key controlling the circuit of the calling-generator, a spring retracted link adapted to be brought into engagement with the said lever by the movement of the key, an escapement-controlled ratchet-wheel, a pawl carried by the link adapted to engage the ratchet-wheel in the return movement of the link, and registering mechanism adapted to be impelled by said retractive spring through the medium of the link, as described. 5th. The combination with a lever whose position is changed during the use of the telephone, of registering mechanism, link mechanism controlled by the said lever adapted to impart motion to the registering mechanism at the end of a predetermined travel, and means for retarding the movement of the link mechanism, as described. 6th. The combination with telephone-switch lever of link mechanism controlled by said lever adapted to impart motion to the registering-wheels at the end of a predetermined travel, a key controlling the signalling-circuit adapted when moved to bring said link mechanism into operative relation to the said lever, and means for retarding the movement of the link mechanism, as described. 7th. In combination, the lever controlled by the telephone-switch, the retractive spring acting thereon, counting-wheels and driving ratchet-wheel thereof, the lever carrying a pawl adapted to engage the ratchet-wheel, the link pivoted on the pawl-carrying lever, the key adapted to cause said link to engage the switch-controlled lever, and means for retarding the movement of the pawl-carrying lever, as described.

No. 53,724. Telephone Service Register.

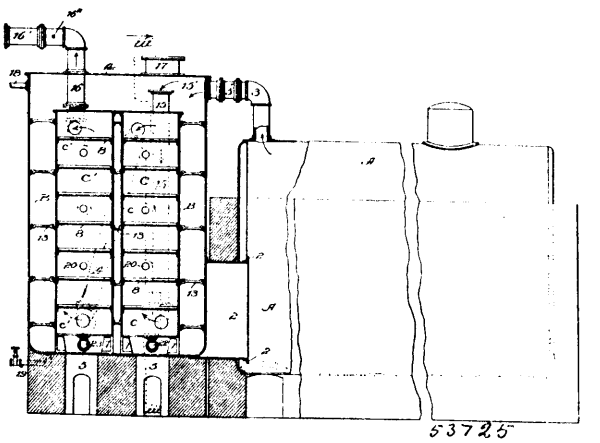
(*Registre de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Stephen Dudley Field, Stockbridge, Massachusetts, U.S.A., 9th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. The combination with a lever whose position is altered during the use of the telephone transmitter or receiver, of registering mechanism, a link adapted to connect the lever with the said mechanism to communicate motion thereto, and a device controlling a signal-sending circuit, said device being adapted when actuated to bring the said link into operative connection with the lever, as described. 2nd. The combination with a lever whose position is altered during the use of the telephone, of time-recording mechanism, a link adapted to connect the lever with said mechanism to communicate motion thereto, a signal-receiving instrument, an electro magnet in the circuit therewith, and a device controlled by the electro magnet to move the link out of operative connection with the lever, as described. 3rd. The combination with a spring-retracted telephone-switch lever, of time-recording mechanism, a link adapted to connect the spring impelled lever with the recording mechanism, a push controlling the signal-sending circuit, and an electro magnet in the signal-receiving circuit adapted to act oppositely upon said link to control its operative connection with the lever, as described. 4th. The combination, a telephone-switch and a spring-impelled lever moving therewith, time-recording mechanism, a ratchet-wheel and a pawl for communicating motion thereto, a link controlling the movement of the pawl, adapted to engage said lever, a push-button normally short-circuiting the signal-sending generator, a signal receiving circuit and an electromagnet therein, the push-button and the electromagnet being adapted to move the link in opposite directions into and out of operative connection with the spring-impelled lever respectively, as described. 5th. The combination, with a telephone-station apparatus comprising telephones, an automatic telephone-switch and call-sending mechanism, of a metre for indicating and registering the amount of use of the telephones and connections between said metre and said switch and call-sending appliances, whereby the metre is set in operation by the conjoint action of the switch and call-sending appliances, and is arrested by the reverse operation of the switch, substantially as described. 6th. In a telephone-service register, comprising in combination a lever or device whose position is changed during the use of the telephone transmitter or receiver, registering mechanism actuating mechanism therefor, such as spring and connections and means operated during the transmission of a signal to bring said actuating mechanism into operative connection with said register mechanism.

No. 53,725. Process of and Apparatus for Refining Petroleum. (*Procédé et appareil pour raffiner le vétrole.*)



The Solar Refining Company, assignee of Herman Frasch, both of Cleveland, Ohio, U.S.A., 10th October, 1896; 6 years. (Filed 18th October, 1895.)

Claim.—1st. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in subjecting the skunk-bearing vapours to a solid skunk-decomposing substance in that special state of extreme subdivision which obtains after a swelling of said substance by a change of chemical composition under conditions of temperature and pressure favourable to the retention of such enlarged volume, substantially as described. 2nd. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in subjecting the skunk-bearing vapours to a solid skunk-decomposing substance having a basis of copper or like metal in that special state of extreme subdivision which obtains after a swelling of said substance by a change of chemical composition under conditions of temperature and pressure favourable to the retention of such increased volume, substantially as described. 3rd. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in subjecting the skunk-bearing vapours to a solid skunk-decomposing substance in the herein described condition of extreme subdivision, substantially as described. 4th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in producing in a solid skunk-decomposing substance having a basis of copper or like metal, the swelled state which results from the specified skunk-decomposition and burning, and subjecting skunk-bearing vapours to the swelled substance so produced, substantially as described. 5th. The improvement in the art of removing skunk from Canadian or similar petrcleum, consisting in producing in a solid skunk-decomposing substance having a

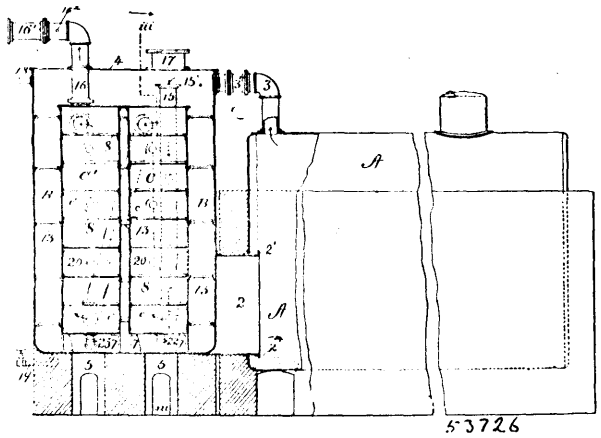
basis of copper or like metal that special state of extreme subdivision which obtains therein after exposure to vapours of skunk-bearing oil and subsequent burning under conditions of temperature and pressure favourable to the retention of the enlarged volume, and subjecting the skunk-bearing vapours to the said substance in such special state, substantially as described. 6th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in so disposing an ordinary ground or precipitated skunk-decomposing substance, preferably having a basis of copper or like metal, on supports to give gas or vapour access to said substance without raking or disturbing the same, then producing in such substances, while remaining on said supports, the swelled condition which results from the specified skunk-decomposition and burning, and subjecting skunk-bearing vapours to said substance in such swelled state also while on the same supports, substantially as described. 7th. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in vaporizing the oil and subjecting the vapours to a skunk-decomposing substance in a solid finely divided condition whose temperature is raised gradually with the progress of the distillation and is kept above that in the vapour space of the still, substantially as described. 8th. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in vaporizing the oil and subjecting the vapours to a skunk-decomposing substance in a solid finely divided condition whose temperature is raised gradually with the progress of the distillation by means of a liquid of constantly rising boiling point, substantially as described. 9th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in vaporizing the oil and subjecting the vapours to a skunk-decomposing substance in a solid finely divided condition whose temperature is maintained by the heated oil in distillation, substantially as described. 10th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in vaporizing the oil, subjecting the vapours to a skunk-decomposing substance in a solid finely divided condition whose temperature is maintained by the heated oil in distillation and revivifying the said substance by combustion on the supports whereon it is used, leaving the same in a solid finely divided condition, substantially as described. 11th. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in subjecting the skunk-bearing vapours to an oxide or salt of copper or other metal whose oxide is soluble in skunk-bearing oil in the herein described condition of extreme subdivision, such oxide or salt having from about a half to a third of the weight of an equal bulk of ordinary finely ground copper oxide, substantially as described. 12th. The improvement in the art of removing skunk from Canadian and similar petroleum by a continuous process, consisting in passing the skunk-bearing vapours in small horizontally flowing streams over layers of a finely divided skunk-decomposing substance and revivifying such substance by passing over said layers similar streams of a gaseous revivifying agent, leaving the said substance in a finely divided condition for repeated action, substantially as described. 13th. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in so supporting the skunk-decomposing substance as to give aeriform fluid access thereto without raking or similar disturbance, and exposing the so-supported substance in a dry state, now to skunk-bearing vapours to effect the decomposition of the skunk, and now to air to render the substance again active, the conditions, as well of temperature as of pressure, during such skunk-decomposition and revivification being such as favour the retention of the swelled or expanded state of the said substance induced therein, before or after it is placed on its supports, substantially as described. 14th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in supporting the skunk-decomposing substance in a solid, finely divided state in a way to give access of an aeriform fluid thereto, without raking or similar disturbance, passing the skunk-bearing vapours over the so-supported substance when it is in the active condition, and effecting revivification by an active combustion of the spent substance, leaving the revivified substance in a solid, finely divided condition, substantially as described. 15th. The process of preparing a purificator, by exposing the skunk-decomposing substance to skunk-bearing vapours, and subsequently to air, while the said substance is so supported as to give the said vapours or air access thereto without raking or similar disturbance, and under such conditions of temperature and pressure as favour the retention of the swelled or expanded state of such substance, substantially as described. 16th. The purificator, consisting of an oxide or salt of copper, or other metal whose oxide is soluble in skunk-bearing oil, in the herein-described condition of extreme subdivision, as a new article of manufacture for use for removing skunk from Canadian or similar petroleum, the said purificator having from about a half to a third of the weight of an equal bulk of ordinary finely ground copper oxide, substantially as described. 17th. The method of revivifying a skunk-decomposing substance having a basis of copper or like metal, by producing an active combustion of the sulphured substance, while so supported as to give the air access thereto, without raking or similar disturbance, and controlling such combustion below a caking temperature, substantially as described. 18th. The method of revivifying a skunk-decomposing substance, having a basis of copper or like metal, by producing an active combustion of the sulphured substance, while so supported as to give the air access thereto without raking or similar disturbance, and controlling such combustion below the point of decomposition of the sulphate of the metal constituting the basis of such substance, substantially as described. 19th. The method of revivifying with active combustion, a skunk-decomposing substance having a basis of copper or like metal, by having the said substance thinly disposed on the supports whereon it is held in burning, absorbing excesses of heat by a cooling medium, and adjusting the air supply, so that active combustion goes on without caking the said substance, substantially as described. 20th. The method of revivification, consisting in producing an active combustion of the sulphured substance, while so supported as to give the air access thereto, without raking or similar disturbance, and controlling such combustion by the aid of a cooling medium, substantially as described. 21st. An oil still provided with a purifier having its inlet in communication with the vapour space of the still and its outlet leading to a condenser, the said purifier being arranged to be jacketed by fluid of the still, and having a duct for the oil vapours arranged to be heated by the liquid oil, substantially as described. 22nd. In combination with a vapour duct, a series of successive piles of numerous closely set trays tied together, leaving open-ended passages between the trays, substantially as described. 23rd. In combination with a vapour duct, a series of successive piles of trays, arranged one above another in each pile, with passages between them and the piles separated from one another by passages forming chambers in the duct, into which chambers the spaces between the trays of the adjacent piles open, substantially as described. 24th. In combination with a still or vapour generator, a vapour duct adapted to be heated, and a series of successive piles of numerous closely set trays tied together, leaving open-ended passages between the trays, substantially as described. 25th. An oil still, provided with a purifier having a jacketing chamber in communication with the liquid space of said still, said purifier being connected with the vapour space of said still, and having an outlet leading to a condenser, substantially as described. 26th. The combination with an oil still, of a jacketing purifier having its jacket connected with the interior of the still, and means outside the still for heating said jacket externally, substantially as described. 27th. In combination with an oil still, a purifier exposed externally to the oil in distillation, and having its inlet connected with the vapour space of said still and its outlet leading to a condenser, means whereby said connection can be broken, means for admitting air into said purifier, and means for suppling a cooling medium to the outside of said purifier, substantially as described. 28th. In combination with an oil still, a jacketed purifier having its jacket connected with the interior of the still, and the inlet to the purifier in communication with the vapour space of the still, and the outlet leading to a condenser, means whereby said connection can be broken, means for admitting air into the purifier, and means for applying a cooling medium to said jacket, substantially as described. 29th. A jacketed purifier having a vapour inlet and outlet and provided also with a tortuous vapour duct, and also with air-inlet pipes, opening at the inner ends into said duct at different levels, and at their outer ends into the air outside said jacket, substantially as described. 30th. In combination with a still, a jacketed purifier having an inlet connected with the vapour space of the still, and a vapour outlet leading to a condenser and provided also with floors therein so arranged as to form a tortuous vapour duct, with air-inlet pipes opening at the inner ends into said duct at different levels and at their outer ends into the air outside the said jacket, and with pipe connections between the said jacket and the interior of said still, pipe closures and disconnectors being also provided, for disconnecting the still in revivification and closing the air inlets, in skunk-decomposition, substantially as described.

No. 53,726. Process of and Apparatus for Refining Petroleum. (*Procédé et appareil pour raffiner le pétrole.*)

The Solar Refining Company, assignee of Herman Frasch, both of Cleveland, Ohio, U.S.A., 10th October, 1896; 6 years. (Filed 18th October, 1895.)

Claim.—1st. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in subjecting the skunk-bearing vapours to a dry purificator composed of a refractory fibrous material like woolly asbestos and a solid finely divided skunk-decomposing substance adherent to the fibres of such material, substantially as described. 2nd. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in subjecting the skunk-bearing vapours to a dry purificator of a refractory fibrous material like woolly asbestos, and a solid finely divided skunk-decomposing substance having a basis of copper or like metal adherent to the fibres of such material, substantially as described. 3rd. The method of preparing a purificator, by mixing solid finely divided skunk-decomposing substance (active or to become active) in suspension in water with pulp of a refractory fibrous material like woolly asbestos, and then drying, substantially as described. 4th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in subjecting the skunk-bearing vapours to a dry purificator composed of a refractory fibrous material like woolly asbestos and a solid finely divided skunk-decomposing substance (preferably a substance having a basis of copper or like metal, adherent to the fibres of such material and being in that special state of extreme subdivision which results from a swelling of said substance by a change of chemical composition under conditions of temperature and pressure favourable to the retention of such

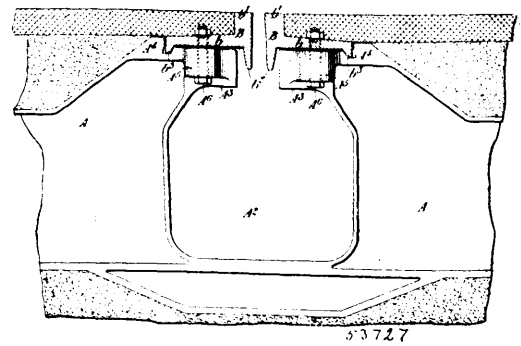
enlarged volume, substantially as described. 5th. The improvement in the art of removing skunk from Canadian or similar petroleum,



consisting in applying ordinary ground or precipitated skunk-decomposing substance (preferably a substance having a basis of copper or like metal) to fibrous refractory material like woolly asbestos, then producing a swelled condition of such substance while adherent to the fibres of such material, and subjecting skunk-bearing vapours to the so adherent substance in said swelled state, substantially as described. 6th. The improvement in the art of removing skunk from Canadian and similar petroleum, consisting in subjecting the skunk-bearing vapours to a dry purificator composed of a refractory fibrous material like woolly asbestos and a skunk-decomposing substance having a basis of copper or like metal adherent to the fibres of such material and being in that special state of extreme subdivision which obtains after an exposure of the so adherent substance to the skunk-bearing vapours and combustion under conditions of temperature and pressure favourable to the retention of said special state, substantially as described. 7th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in subjecting the skunk-bearing vapours to a purificator composed of a refractory fibrous material like woolly asbestos and a solid finely divided skunk-decomposing substance adherent to the fibres of such material by causing the said vapours to pass in a zigzag course over said layers of dry purificator, substantially as described. 8th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in subjecting the skunk-bearing vapours to a dry purificator composed of a refractory fibrous material like woolly asbestos and a solid finely divided skunk-decomposing substance adherent to the fibres of such material by causing the said vapours to pass in numerous parallel horizontally or inclinedly flowing streams over and between layers of said purificator, substantially as described. 9th. The method of revivifying a skunk-decomposing substance, by producing an active combustion of the sulphured substance while adherent to fibrous refractory material like woolly asbestos. and so disposed as to give air access thereto without raking or similar disturbance, and controlling such combustion below the caking point of fusible skunk-decomposing substance such as compounds of copper, substantially as described. 10th. The method of revivifying a skunk-decomposing substance, by producing an active combustion of the sulphured substance while adherent to fibrous refractory material like woolly asbestos, and so disposed as to give air access thereto without raking or similar disturbance, and controlling such combustion below the caking point of fusible skunk decomposing substances, such as compounds of copper, by means of a surrounding cooling medium, substantially as described. 11th. The improvement in the art of removing skunk from Canadian or similar petroleum, consisting in disposing in layers a purificator which is composed of a solid skunk-decomposing substance, preferably a substance having a basis of copper or like metal, and a fibrous refractory material like woolly asbestos whereto said substance adheres, subjecting the skunk-bearing vapours to the so disposed and so adherent substance by passing the same in numerous parallel horizontally or inclinedly flowing streams over and between dry layers of such purificator and revivifying the said substance by producing an active combustion of the same while adherent to the fibrous material and disposed as aforesaid, the air passing like the oil vapors in numerous parallel horizontally or inclinedly flowing streams over and between the layers of the purificator whose disposition allows the acces of oil vapours and air to the skunk decomposing substance without raking or similar disturbance, and the temperature of combustion being controlled below caking by means of a cooling medium, substantially as described. 12th. As a new article of manufacture, a purificator for eliminating the skunk from Canadian and similar petroleums, consisting of a fibrous refractory material such as woolly asbestos having a solid freely divided decomposing substance adherent to the fibres thereof, substantially as described.

No. 53,727. Electric Tramway or Railway.

(*Chemin de fer électrique.*)



John Charles Love and John Earle Hodges, late of London, England, 10th October, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In an electric railway or tramway of the kind hereinbefore stated, the construction of the slot-rail consisting of a central portion or web having an upwardly projecting flange and a downwardly projecting lip on its inner edge and on its outer edge having a depending lip or flange for engaging with corresponding openings in the yokes, substantially as described and for the purpose specified. 2nd. The modified construction of the slot-rail above claimed, wherein an upwardly projecting rib or flange b^x is provided on the outer edge for the purposes specified. 3rd. In an electric railway or tramway of the kind hereinbefore stated, the combination of the slot-rails B, lateral lugs or projections A^5 on the portions A^3 of the yokes, and retaining bolts A^6 passing through elongated holes in the rails, for the purpose specified. 4th. In an electric railway or tramway of the kind hereinbefore stated the construction of the electric switch or "cut-out" consisting in the combination of sleeves D^1 into which the ends of the line wires or conductors enter, lugs D^2 on the said sleeves capable of being bolted to plates D^4 depending from an insulator, a rod or bar D^5 passing loosely through the said insulator and provided with a contact piece D^6 at its lower end for entering the space existing between the adjacent ends of the sleeves D^1, a transverse pin or other suitable means for retaining the rod or bar in its raised position, and a removable block of insulating material for insertion between the ends of the sleeves when the contact piece is raised, substantially as described. 5th. In an electric railway or tramway of the kind hereinbefore stated, the construction of the underground contact device consisting of brackets O^2 extending from the sides of an arm O carried by the vehicle, a horizontal pivot O^3 situated in contiguity to the free ends of each of the said brackets, a short arm O^8 mounted loosely on the said pivot and having a vertical aperture near its free end, a trolley arm O^5 having a downwardly bent outer end carrying the rolling contact or trolley wheel O^6 and a vertical pivot O^7 at its inner end, adapted to enter the aforesaid aperture in the said short arm, and a spiral spring connected at one end to the extremity of the bracket O^2 and at the other end to a point where the bend in the trolley arm is formed, all substantially as described. 6th. In an electric railway or tramway an overhead contact device consisting of a rotary spindle P carrying a pair of arms P^3 to which springs P^5 are connected, a centrally arranged weighted lever P^8 capable of turning about a horizontal pivot P^{11} on the aforesaid spindle, arms P^7 carried by this lever and to which the other ends of the aforesaid springs are connected, a vertical pivot P^{12} about which the rod or arm carrying the trolley wheel can turn, a bolt p^3 for restraining the spindle P from revolving, and means for enabling the said spindle to be revolved at the desired times, all substantially as described.

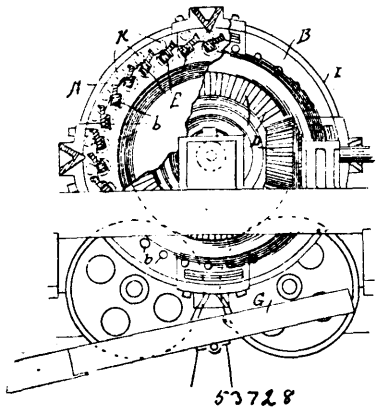
No. 53,728. Adjustable Rotary Screen.

(*Ecran rotatoire ajustable.*)

Hugh P. Grugin, Bannack, Montana, U.S.A., 10th October, 1896; 6 years. (Filed 16th September, 1896.)

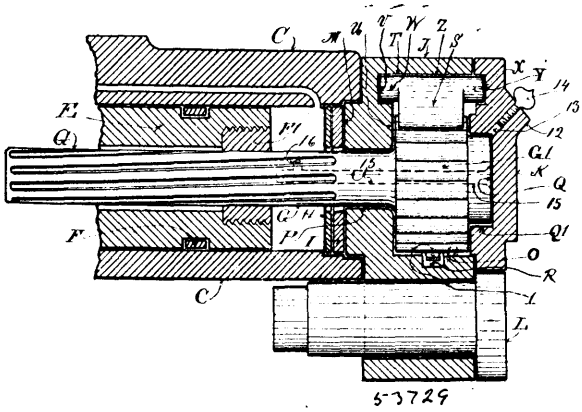
Claim.—1st. A screen consisting of circular heads, bars extending horizontally between the heads and provided with threaded ends and nuts for securing said heads together, other bars around the periphery journalled to turn loosely in the heads, having the intermediate portion of each projecting to one side of the line of the journals so that the free edges will move about said journals, arms projecting from the journal shafts and an annular disc having pockets on its inner face into which said arms project, said disc slotted at intervals to directly receive the ends of the holding bars whereby it is movable about the axis of the apparatus, so as to open or close the screen bars with relation to each other. 2nd. An improved screen consisting of circular heads supported to turn about a horizontal axis with openings for the admission of material to be screened, bars extending between said heads with nuts by which they are locked to the heads, screen bars also extending from one head to the other having journals formed upon the ends, near one edge, of each bar whereby the opposite edge is turnable so that the bars may close together or open to any desired degree, an annular ring having slots through

which the main holding bars pass, and pockets into which crank arms from the screen bars enter, whereby the turning of said rim in



one direction or the other, will close or open the bars and form screen openings of any desired size, a bevelled gear on one of the heads and engaging pinion by which it is driven, and a sluice placed directly beneath the cylinder.

No. 53,729. Rotary Feeding Mechanism for Rock Drilling Engines. (*Mécanisme rotatoire d'alimentation pour forêts de mine.*)



John George Leyner, Denver, Colorado, U.S.A., 10th October, 1896; 6 years. (Filed 25th September, 1896.)

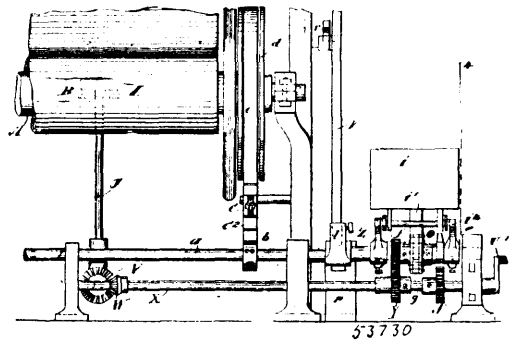
Claim.—1st. The combination with the ratchet and pawl rotary feeding mechanism of rock drills, of a cylinder head having a suitable chamber therein adapted to support said mechanism, a circumferential slot in said chamber and springs secured in said slot arranged to resiliently hold said pawls in operative relation to said ratchet. 2nd. The combination of the cylinder, the piston, the rifle-bar, the cylinder heads and the pawls arranged to catch and hold the rifle-bar at parts of its normal movement, having trunnions or circular hubs on each end and suitable bearings therefor. 3rd. The combination with the cylinder and the piston, of a back cylinder head constructed and arranged substantially as herein shown and described.

No. 53,730. Let-Off Mechanism for Looms.

(*Mécanisme de relâche pour métiers à tisser.*)

Arthur Allan Forbes, St. Hyacinthe, Quebec, Canada, 10th October, 1896; 6 years. (Filed 28th August, 1896.)

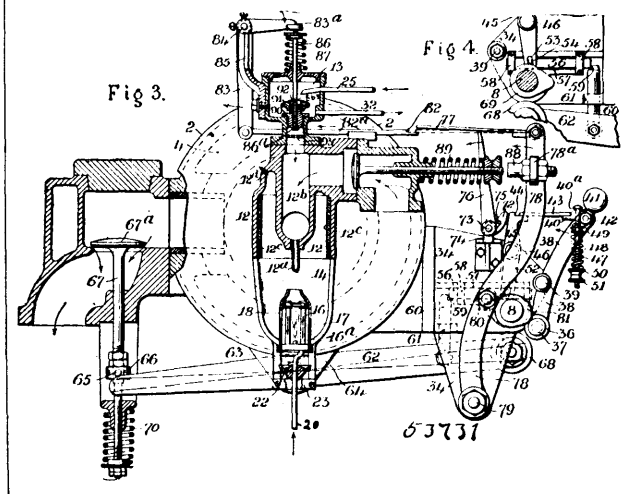
Claim.—1st. A let-off mechanism for looms, comprising a shaft arranged lengthwise of the warp beam and carrying pulleys *b*, friction bands engaging the heads of the beam, band holders *c* connecting said bands to said pulleys, levers *e* rigidly secured to the aforesaid shaft and provided with abutments *j*, a gauge *s* for ascertaining the position of the said levers *e*, the pin or holder *t* for supporting the said levers, the car or weight held to travel on said levers *e* and to engage said abutments *j*, a rack E movable toward and from the warp beam and carrying a follower, such as a roller to engage the warp, said rack being provided with an aperture E^1, a pin E^2 adapted to be inserted in said aperture to collide with the frame and thereby limit the movement of the rack and determine the position thereof, a change pinion I engaging the said rack and operatively connected to the aforesaid car, so that the rack and car may move in unison, means for imparting motion to the rack and car, a ratchet wheel N operatively connected to the car so as to turn when the car travels on the levers *e*, and a pawl O adapted to engage said ratchet to prevent rotation thereof in one direction and thereby temporarily prevent the return movement of the car, substantially as shown and described. 2nd. In a let-off mechanism for looms, c



shaft arranged lengthwise of the warp beam and carrying pulleys *b*, friction bands engaging the heads of the beams, band holders C^1 connecting said band to said pulleys, levers *e* rigidly secured to said shaft, a car or weight *i* held to travel on said levers, an angular offset *l* rigidly secured to said shaft, a lever *k* secured to said angular offset, a catch *r* for holding the lever stationary, an anti-friction roller *m* carried by said angular offset, a stationary bracket, a balance lever *n* fulcrumed in said bracket and engaging said anti-friction roller, and a slidable weight *q* on said balance lever, substantially as shown and described.

No. 53,731. Oil and Gas Motor Engine.

(*Moteur à huile et gaz.*)



John Samuel Cundall, Robert Dinsdale Cundall, William Denton Cundall and Henry Cordingley Cundall, all of Airedale Iron Works, Otley Road, Shipley, York, England, 10th October, 1896; 6 years. (Filed 1st September, 1896.)

Claim.—1st. In an oil or gas engine, the combination of a pendulous governor or regulator, a lever arm secured on a rock shaft and provided with a shoulder adapted to be engaged by a finger controlled by the governor, a depending slotted lever arm secured on said rock shaft, a sliding bolt or bar adapted to be slided endwise in a way or groove, a pin or roll integral with or secured to the side of said sliding bar which takes into and engages with the sides of the slot in the said depending lever arm, a finger attached to the exhaust lever, a bearing in which said lever is supported, a shoulder on said finger adapted to be engaged by the end of the sliding bolt, the exhaust lever actuated in one direction by a cam on the cam shaft to open the exhaust valve and in the opposite direction to close said valve by a confined spring and the said exhaust valve, all substantially as described. 2nd. In an oil or gas engine, the combination with a regulator lever actuated by cam on the cam or side shaft, a weighted pendulum hung on a stud on said lever, a confined spring for giving the required resistance to the inertia of the pendulum, an adjusting nut for varying the rates of speed of the engine by altering the tension of the confined spring, a finger attached to the pendulum or weighted pendulous lever adapted to engage with a shoulder on the end of a lever arm when the pendulum fails to move on its centre, and to be raised clear of said shoulder when the inertia of the pendulum causes it to lag behind the motion of the regulator lever, and a lever arm fast on a rock shaft, of a depending slotted lever arm fast on said rock shaft, a sliding bolt or bar provided with

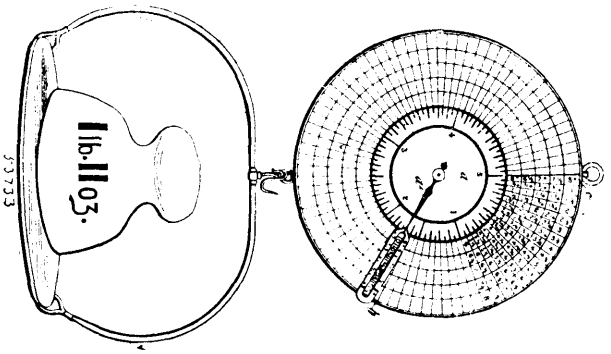
a stud or roll which enters and engages with the sides of the slot in the lever arm and is moved endwise in the way or recess in the supporting bracket by said lever arm when the rock shaft is turned partially round, and a finger attached to the exhaust lever arm provided at its end with a shoulder which is engaged by the sliding bolt or bar when the latter is not actuated by the intermediate mechanism from the governor and prevents the complete movement of the exhaust lever in one direction thereby holding the exhaust valve open and avoiding the indrawing of a charge of oil and of unnecessary compression and explosion, substantially as set forth. 3rd. In an oil engine, the combination with a governor or regulator of the pendulous or inertia type, a finger 43 secured thereto, and a lever arm 45 secured on a rock shaft 46, journalled in bearings in the bracket 34, and provided with a shoulder 44 adapted to be engaged when the rate of the engine determines, by the finger 43, of a curved lever or cam engaging with said lever arm, a short shaft on which said curved lever or cam is fast and on which is also fast a holding lever adapted to engage a finger hinged to a lever pivoted on a stud secured to the bracket 34, the said lever, a cam fast on the cam shaft 8 for actuating the lever, the said hinged finger normally engaged by the holding lever to hold it clear of a shoulder on the end of a rod, the said rod provided with a shoulder at one end adapted to be engaged by the finger when the holding lever is oscillated and attached at the opposite end to a lever arm fast on a short shaft journalled in bearings in a bracket bolted to the oil cup, a depression lever arm also fast on said shaft and adapted, when actuated, to press or force down the spindle of the oil inlet valve against the resistance of a confined spring on said spindle and to open said valve, substantially as set forth. 4th. In gas and oil engines, the combination of mechanism actuated by the governors for automatically closing the exhaust port, and simultaneously therewith opening the inlet valve and *vice versa*, substantially as described and shown in the drawings. 5th. In an oil engine, the combination with a regulator or governor of the pendulous or inertia type, a finger 43 secured thereto, a lever arm 45 provided with shoulder 44, a rock shaft 46, slotted lever arm 52, sliding bolt 56, pin or roll 54 integral with said sliding bolt and entering and engaging with the sides of the slot 53 in lever arm 52, a groove or recess 57 formed in the bracket 34 to receive the sliding bolt 56, a finger 60 attached to the lever for actuating the exhaust valve, a bearing 61 to support the finger, a shoulder 59 on the upper end of said finger which, when engaged by the sliding bolt holds the exhaust valve a little open to prevent a vacuum or suction in the cylinder on the outward stroke of the piston and avoid the indrawing of a charge of oil, of a curved lever or cam 72 fast on a short rock shaft 73, and engaging with the lever arm 45, a coiled spring surrounding said shaft and attached at one end to the curved lever or cam, and at the opposite end to the bracket 74 to reinstate the parts, a holding lever 76 normally engaging with the underside of a finger 77 hinged to a lever 78, said finger 77 and lever 78, and a cam 81 fast on cam shaft 8 for giving an oscillatory motion to said lever, an adjustable stop secured to a lug on the lever 78, and adapted to engage with the spindle of the air inlet valve and open same at every revolution of the cam shaft, a rod 82^a provided with a shoulder 82, and connected with lever arm 83 fast on a shaft 84 and the lever arms 83, 83^a, the latter engaging the spindle of the oil inlet valve and adapted when moved or turned about the centre by the endwise thrust of the rod 82^a, on the engagement of the finger 77 with the shoulder 82 which is brought about through the movement of the intermediate mechanism by the finger 43 striking the shoulder 44 on lever arm 45, to depress the said valve spindle and open the oil inlet valve positively so that a charge of oil can be drawn into the cylinder, substantially as described. 6th. In an oil engine, the combination, with an oil cup and oil inlet valve of a bush screwed into or made integral with the oil cup, and provided with an external screw thread and a nut or tapped disc adapted to be screwed on to the bush and to form with the upper face of said bush a cup or thimble to receive a given charge of oil for supplying the vaporizer, and to adjust or regulate the amount of oil to constitute the charge, substantially as set forth. 7th. In an oil engine, the combination of the oil cup 13, bush 90, forming a bearing for the spindle 86 of the oil inlet valve, the said valve spindle provided with flat sides 83^b forming passages for the oil, the valve 86^a adapted to be closed by confined spring against its seating formed on the underside of the bush 90, an adjusting nut or disc 91 adapted to be screwed on to the bush 90, the upper end of which forms the bottom, and the internal walls of the said nut the sides, of a thimble or cup whose capacity is varied to hold more or less oil by adjustment of the nut 91, the said cup 92 and a perforated plate 93 screwed into the neck of the cup 13 for dividing the oil into finer particles prior to entering the vaporizer, substantially as described. 8th. In an oil engine, the combination of the oil cup 13, bush 90, adjusting nut or disc 91, for regulating the supply of oil to the cylinder, the charge cup or thimble 92 whose capacity can be increased or decreased by the nut or disc 91, a pump 26 for supplying oil to the cup or thimble 92, the oil inlet valve 86^a, a depressing lever 83^a, mechanism intermediate of said lever and the lever arm 45 and finger 43 for opening said valve positively as the engine demands it, a pendulous governor actuated from the cam shaft 8, and a slotted lever drum 52, sliding locking bolt 56 engaged thereby, and vertical finger 60 attached to the lever for opening and closing the exhaust valve, for holding the said exhaust valve a little open when the load does not require the indrawing of a charge of oil, substantially as described.

No. 53,732. Compound for Preventing the Escape of Air from a Punctured Tire. (*Composé pour empêcher l'air de s'échapper d'un bandage percé.*)

William C. Moore, William Ralph and Thomas Ralph, all of London, Ontario, Canada, 10th October, 1896; 6 years. (Filed 22nd September, 1896.)

Claim.—A compound consisting of the best glue, water, glycerine and chloroform, substantially in the proportions stated, and for the purposes set forth.

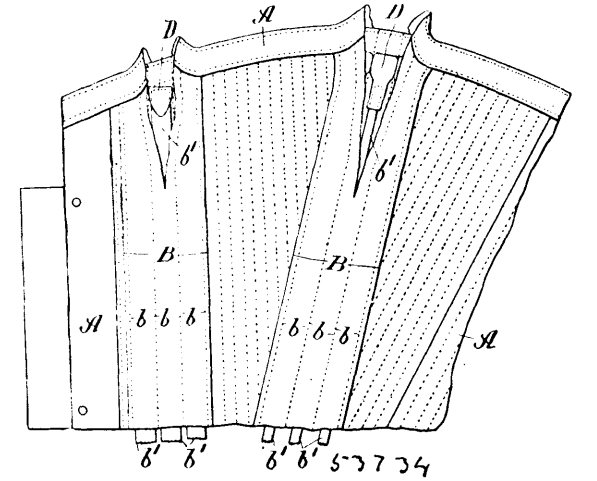
No. 53,733. Weight and Cost Indicator for Scales.
(*Indicateur de poids et prix pour balances.*)



The Combined Weight and Cost Indicating Scale Company, assignee of Herbert James Wood and William Thomson, all of Christchurch, Canterbury, New Zealand, 10th October, 1896; 6 years. (Filed 20th May, 1896.)

Claim.—1st. The combined weight and cost indicating apparatus for spring balance scales, substantially as and for the purposes herein described. 2nd. In a combined weight and cost indicating apparatus, a dial divided by concentric lines, and also by radial lines, extending from ordinary weight divisions with which the inner portion of the dial is marked, whereby spaces are formed, containing the cost of articles of different weights and at different prices, substantially as and for the purposes herein described. 3rd. In combination the dial divided by lines forming concentric annular rings and an indicator (such as *b*) travelling with the pointer (*a*) and indicating the rings devoted to articles of different price, substantially as and for the purpose herein described.

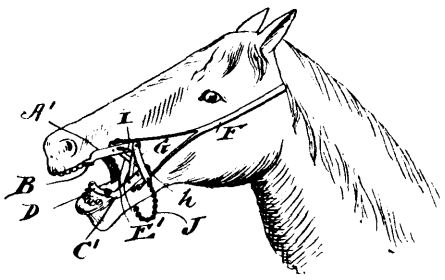
No. 53,734. Garment Stay. (*Renfort de vêtement.*)



James Eveleth Maynadier, Taunton, assignee of Nathaniel Frederick Thayer Hunt, Braintree, both of Massachusetts, U.S.A., 10th October, 1896; 6 years. (Filed 16th June, 1896.)

Claim.—1st. A stay for corsets and other garments composed of strips of soft textile sheet material sewed together by parallel seams to form the pocket *b*, the steel b^1 in that pocket and the socket *d*, constructed to hold itself in that pocket, substantially as described. 2nd. A stay for corsets and other garments composed of strips of soft flexible sheet material, sewed together by parallel seams to form the pockets *b*, two steels each slightly less in width than the pocket and each unconnected with the other and fitting loosely, and two sockets *d*, one at each end of the pocket over the ends of the steels, constructed to hold themselves in the pocket, substantially as described.

No. 53,735. Veterinary Mouth Speculum.
(*Speculum vétérinaire.*)



53735

Henry Francis Condon and John Willard Glidden, both of De Kalb, Illinois, U.S.A., 10th October, 1896; 6 years. (Filed 29th August, 1896.)

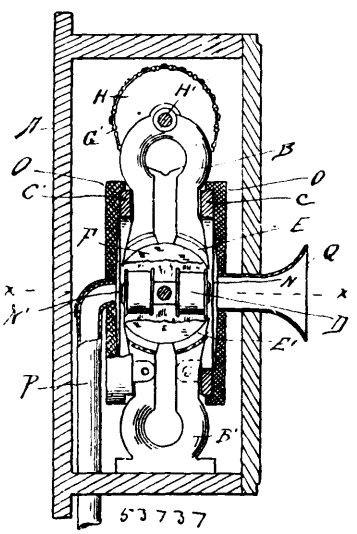
Claim.—1st. A veterinary mouth speculum, comprising in combination upper and lower jaws, spreader bars pivotally connecting said jaws in pairs at their forward ends, levers pivoted to said jaws at their rear ends and said levers crossing each other and being pivotally connected to the upper and lower jaws between their ends, substantially as described. 2nd. A veterinary mouth speculum, comprising in combination upper and lower jaws, spreader bars pivotally connecting said jaws at their forward ends, levers pivotally connecting the upper and lower jaws together, said levers being arranged to cross each other and having their forward ends extended for connection to a head stall, substantially as described. 3rd. A veterinary mouth speculum, comprising in combination upper and lower jaws having substantially straight bodies, spreader bars pivotally connecting said jaws in pairs, diagonally arranged levers two for each side crossing each other and connecting an upper and a lower jaw pivotally together and a locking device applied to the rear ends of said jaws, substantially as described.

No. 53,736. Process of Treating Animal Skins.
(*Procédé pour le traitement de peau d'animal.*)

The Marloid Manufacturing (Parent) Company, High Holborn, assignee of César Martel, Fitzroy Square, both in England, 10th October, 1896; 6 years. (Filed 11th May, 1896.)

Claim.—1st. The process of treating animal skins, which consists in first clearing the skins of hair and fleshy matter, then subjecting same to a lime bath, removing the lime and drying, immersing the dried skins in heated oil or oleaginous matter and finally pressing same. 2nd. The process of treating animal skins, which consists in first clearing the skins of hair and fleshy matter, then subjecting same to a lime bath, removing the lime and drying, immersing the dried skins in a mixture of heated oil and oleaginous matter and finally pressing same. 3rd. In the treatment of animal hide for the purpose set forth, immersing the hide in heated oil and then pressing same.

No. 53,737. Telephone Apparatus. (*Appareil de téléphone.*)

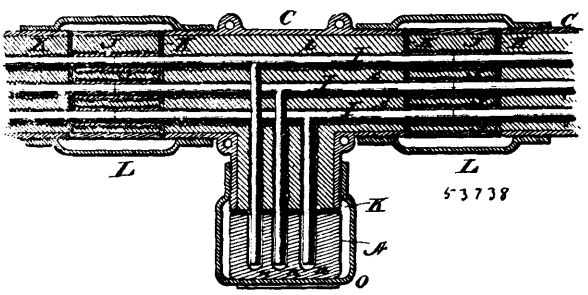


53737

Carl J. Schwarze, Adrian, Michigan, U.S.A., 12th October, 1896; 6 years. (Filed 17th June, 1896.)

Claim.—1st. In a telephone, the combination with a magneto electric generator for signalling, of a microphone transmitter, in magnetic inductive relation to said generator, and adapted to have its microphonic material agitated by the magnetic influence in the operation of the generator. 2nd. The combination with a magneto generator for signalling, and a vibratory diaphragm (constituting in connection with said generator a magneto telephone), of an extra winding upon the arm of said generator and a variable resistance in mechanical contact with said vibratory diaphragm, included in an electric circuit with said extra armature winding, the whole constituting a microphone transmitter. 3rd. In a telephone, the combination with a magneto generator for signalling, of a vibratory diaphragm forming one of the poles of the permanent magnet held in proximity to the revolving armature of said generator, and a granular variable resistance medium, forming an element of a microphone transmitter, in mechanical contact with said vibratory diaphragm, and adapted to be agitated thereby during the operation of the said magneto generator. 4th. In a telephone, the cap O^2 provided with the separated diaphragm N^2 and R, with a granular variable resistance medium between and the mouthpiece Q^1, in combination with a magneto generator for signalling, having an annular pole piece to which said cap is adapted to be detachably secured, a battery and electric connections together constituting a microphone transmitter. 5th. In a telephone apparatus, a magneto generator for signalling, a vibratory diaphragm forming one of the poles of the permanent magnet, a second diaphragm separated therefrom with a granular variable resistance medium between, and a primary and secondary winding on the armature, the former connected in a local battery circuit, including said variable resistance, connected in to the line circuit. 6th. In a telephone apparatus, comprising transmitting, receiving and signalling instrumentalities, all included in the main circuit, with shunts around said devices, a switch lever held normally in its mid position by the ear phone hung thereon, in which position the transmitter, receiver and signal generator are shunted out, said lever being adapted to be depressed to open said shunt and to automatically rise when the ear phone is removed to shunt out the bell. 7th. In a telephone, the combination with a magneto electric generator for signalling, provided with a vibratory diaphragm forming a part of one of the magnetic poles thereof and adapted to be agitated by the operation of said generator, of a microphone transmitter in mechanical contact with said diaphragm. 8th. In a telephone, the combination with a magneto electric generator for signalling, of a microphone, comprising two diaphragms with a variable resistance medium between, one diaphragm being formed of magnetic material, arranged in magnetic inductive relation to said generator and adapted to be agitated by the magnetic influence of the generator in the sending of the signal. 9th. In a telephone, the combination with a magneto electric generator for signalling provided with a vibratory diaphragm forming a part of one of the poles of the field magnet, and a revolving armature having two windings, one of which is connected into the line circuit, of a microphone transmitter in mechanical contact with said diaphragm and included in an electric circuit with the other armature winding. 10th. In a telephone, a magneto electric generator for signalling, having an armature provided with two windings, one of which is connected in the line circuit, in combination with a microphone transmitter included in an electric circuit with the other armature winding. 11th. In a telephone, a magneto electric generator for signalling, having its permanent magnet formed with an opening in one of its pole pieces, a microphone transmitter mounted in said opening, provided with a diaphragm forming an element of the permanent magnet, and an electric circuit including said microphone and a second winding on the armature of the generator.

No. 53,738. Underground Electrical Conductor and Method of Manufacturing the same. (*Conduit electrique souterrain.*)



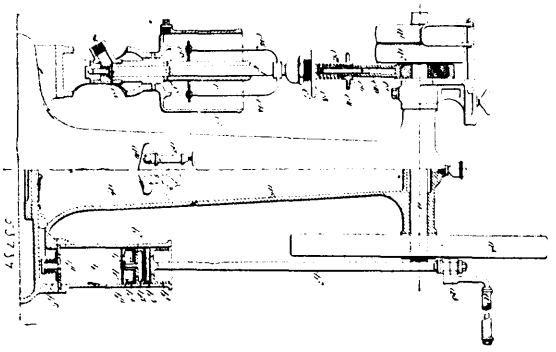
53738

John H. Croskey and Joseph Locke, both of Pittsburg, Pennsylvania, U.S.A., 12th October, 1896; 6 years. (Filed 30th May, 1896.)

Claim.—1st. The method of insulating electric conductors consisting in forcing molten glass into a metallic casing or cover, and around a conductor, or conductors, therein, substantially as described. 2nd. The method of insulating electric conductors, consisting in forcing molten glass into a pipe section in a lateral direction, and around a conductor in said section, substantially as described. 3rd. An electric conductor embedded in a solid mass of glass which is

enclosed in a metallic cover or casing, substantially as described. 4th. An insulated electric conductor section comprising a wire or wires, a solid mass of glass in which the same is embedded, and a metallic tube enclosing said glass, substantially as described. 5th. An insulated electric conductor section comprising a metallic tube, a solid mass of glass molded into said tube, and a wire or wires embedded in said glass, substantially as described. 6th. An insulated electric conductor consisting of a series of pipe sections each containing a solid mass of glass with a wire or wires embedded therein, a series of joint sections consisting of a mass of glass containing tubes adapted to receive the ends of said wires and union members uniting the adjacent pipe sections, substantially as described. 7th. An insulated electric conductor section consisting of a wire or wires covered or coated with a non-combustible material, a solid mass of glass in which said wires are embedded and a metallic envelope cover or covering, substantially as described.

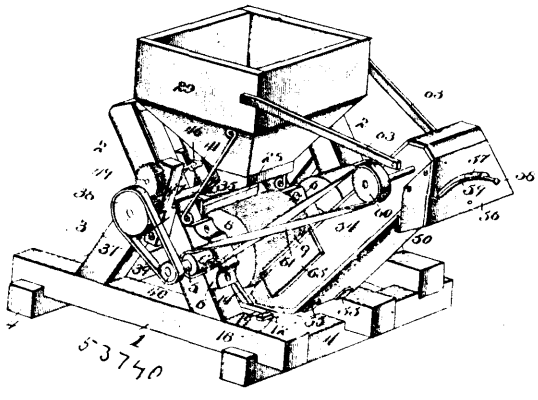
No. 53,739. Apparatus for Coating Surfaces with Paint or Similar Substance. (*Appareil pour peinturer.*)



Roughsedge Wallwork, Manchester, and Arthur Collings Wells, London, both in England, 12th October, 1896; 6 years. (Filed 25th March, 1896.)

Claim.—1st. In apparatus for spraying paint or other similar substance, the combination with the compressed air tank, of removable paint vessels, a mixer or stirrer for agitating the contents of said vessels and a discharge pipe or outlet leading from said vessels, for the purpose specified. 2nd. In apparatus for spraying paint or similar substance, the combination with the compressed air tank, of removable paint vessels and a mixer or stirrer, consisting of a hollow spindle carrying blades and provided with a hollow handle, substantially as described and for the purpose specified. 3rd. In apparatus for spraying paint or similar substance, the combination with the paint delivery pipe of a removable strainer F^x consisting of a perforated or reticulated plug located in a casing divided into two compartments, substantially as described and for the purpose specified.

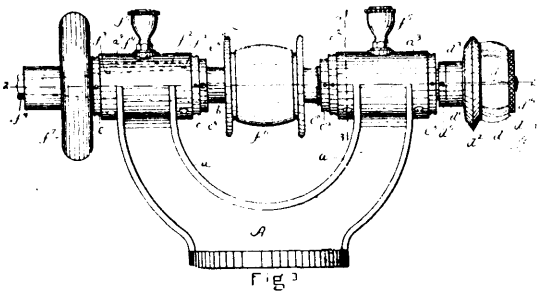
No. 53,740. Feed Mill. (*Appareil d'alimentation.*)



Joseph Hanson, Inwood, Iowa, U.S.A., 12th October, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. The combination with the hopper of a feed mill, of a feed slide, a positively driven feed roll journalled in said slide, and means for adjusting said slide so as to move the feed roll across the discharge opening in the hopper, substantially as specified. 2nd. In a feed mill, the combination with the hopper, of a stationary feed roll located at the discharge opening of the hopper, and an adjustable and positively driven feed roll journalled in a feed slide on one wall of the hopper, substantially as and for the purpose described. 3rd. In a feed mill, a rotary crushing and grinding cylinder, an adjustable concave, in combination with the stationary and movable feed rolls located at the discharge opening of the hopper, and a sliding section of the wall of the hopper having the movable and positively driven feed roll journalled therein, substantially as described. 4th. In a feed mill, the combination with the hopper thereof, of a stationary feed roll, an adjustable feed roll mounted in a sliding frame, adjustable toward and away from the fixed feed roll, a threaded crank shaft for adjusting said sliding frame, a short shaft geared to the fixed feed roll shaft, and an interposed shaft or link having a universal connection with said short shaft and an adjustable feed roll, all arranged and adapted to operate substantially as described.

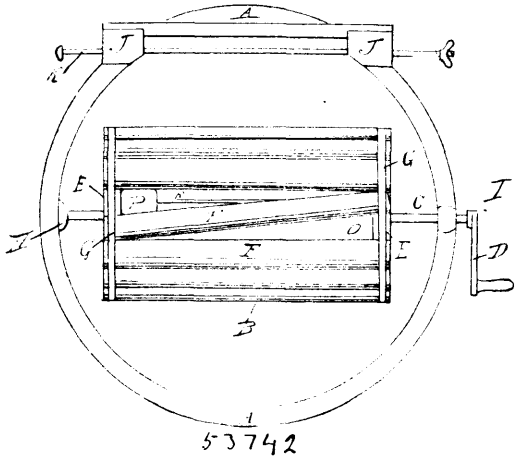
No. 53,741. Rotary Shaft and Journal Box.
(*Arbre rotatoire et coussinet de tourillon.*)



Ambrose Stevens Vose, Boston, Massachusetts, U.S.A., 12th October, 1896; 6 years. (Filed 20th April, 1896.)

Claim.—The combination with a rotatable shaft provided with oppositely extended tapering or conical journals, journal boxes having tapering holes through which said journals extend, and provided with screw threads on their outer peripheries, hollow bearings through which said boxes extend, and threaded collars to engage the screw threads of the journal boxes at opposite ends of their bearings, substantially as and for the purpose specified.

No. 53,742. Washing Machine. (*Machine à laver.*)



Jacob McGee, Egmondville, Ontario, Canada, 12th October, 1896; 6 years. (Filed 1st September, 1896.)

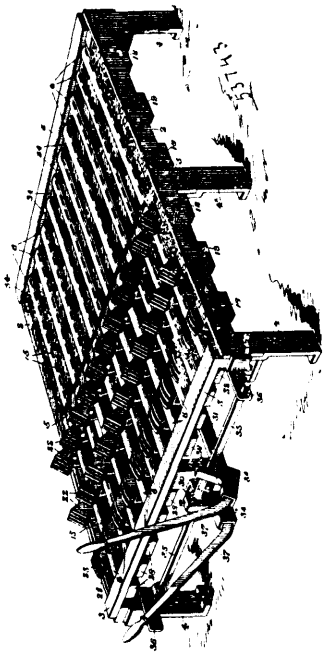
Claim.—1st. A washing machine attachable to an ordinary tub, constructed with cylinder B with bars F and clothes holder as illustrated and described, and cover with rollers M, all substantially as hereinbefore set forth. 2nd. The cylinder B constructed with bars F and clothes holder, revolved by shaft C, in combination with rollers M on cover, all substantially as hereinbefore set forth. 3rd. A clothes holder on a washing machine constructed with movable bars F^1 and spool P on shaft R, all substantially as hereinbefore set forth.

No. 53,743. Shaking Grate for Stationary Locomotive and Marine Boilers. (*Grille de secousse pour locomotive stationaire et chaudière marine.*)

James Reagan, Philadelphia, Pennsylvania, U.S.A., 12th October, 1896; 6 years. (Filed 30th July, 1896.)

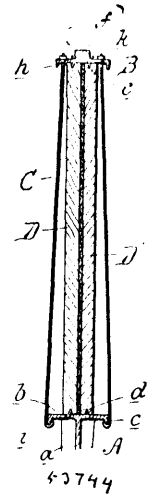
Claim.—1st. A grate bar consisting of a body portion, a substantially central longitudinally extending web depending therefrom, wings depending from the outer portion of said body on either side of said web, the top of said bar being rounded and having its crown of sharper curvature than the adjacent portion, said bar being further provided with ports arranged in staggered position, and staggered ribs extending from each side of said wings to said web, substantially as described. 2nd. A grate bar consisting of a

body portion, a longitudinal web depending therefrom, wings depending from said body portion on either side of said web, staggered



ribs common to the web and wings, tapering ports extending through the body portion and arranged in staggered order, the crown of said bar being arc-shaped and having a sharper curvature at its apex than at its adjacent portions, said web being further provided with depending lugs for attachment to any desired point, substantially as described. 3rd. A grate bar having a suitable body portion with a longitudinal web depending therefrom, wings also depending from said body on either side of said web, staggered transverse ribs extending from the latter to the said wings, ports arranged in staggered order and extending through said body portion, the crown of said fire bar having a greater curvature than the adjacent portion, lugs depending from the ends of said bars for attachment of the same, and the ends of said bars being overlapped, substantially as described. 4th. In a grate, and their supporting devices, a series of longitudinally extending bars adapted to rest thereupon, and provided with depending web and wings and staggered ports, arranged substantially as shown, the crown of said bar being of sharp curvature relative to the adjacent surfaces, choppers interposed between the adjacent bars and having their surfaces normally below said crowns, and means for actuating said choppers, substantially as described. 5th. In a grate, a series of longitudinally extending apertured fire bars having a web depending therefrom, wings and intermediate ribs, choppers interposed between said bars, and means for actuating said bars and choppers in unison, substantially as described. 6th. In a grate, front and rear bearing bars, a bridge bar provided with ledges, longitudinally extending fire bars supported upon said ledges, choppers interposed between the fire bars, arc-shaped ledges on bridge, front and rear bearing bars, adapted to co-act with the adjacent arc-shaped faces of the choppers, substantially as described. 7th. In a grate, front and rear bearing bars, side bearing bars, longitudinal bars and choppers suitably supported thereupon, in combination with movable blocks having ledges thereon for the support of said longitudinal bars, and curved faces or ledges adapted to co-act with the adjacent faces of the choppers, substantially as described. 8th. The grate for marine and other boilers, a side grate or fire bar having the double function of a bearing bar, said bar having a longitudinally extending web, wings on either side thereof, transverse strengthening ribs, and a bearing on side thereof, adapted to receive the journals of a shaft carrying choppers thereon, substantially as described. 9th. In a grate for marine and other boilers, a plurality of side bars, which also serve the function of bearing bars, said bars having a longitudinal web, wings depending from either side thereof, a raised crown having ports therethrough arranged in staggered order, and bearings in the sides of said bars, in combination with shafts seated in said bearings and having choppers thereon, substantially as described. 10th. In a grate for marine and other boilers, the combination of a bridge bar having T-shaped slots at the extremity thereof with the side grate bars having a T-shaped projection adapted to interlock with said bridge bar, wings depending from either side of said side bars, the latter having a longitudinal web, curved crown and ports arranged in staggered order, and being further provided with bearings adapted to receive the chopper shafts, substantially as described. 11th. In a grate of the character described, curved feet adapted to rest upon a boiler shell, cross bars supported upon soid feet, blocks attached to said cross bars, said blocks having ledges and lugs, and a T-shaped recess arranged to support stationary bars, in combination with choppers, and shafts for actuating the same, substantially as described.

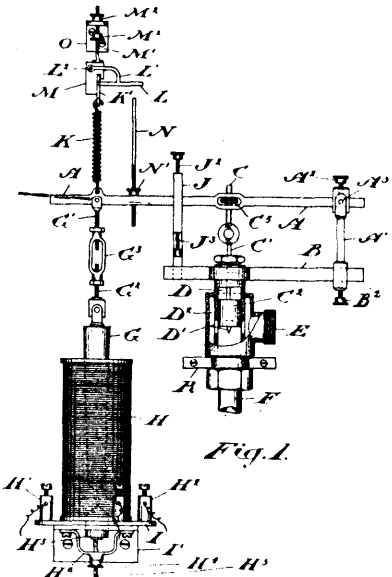
No. 53,744. Fence Post. (*Poteau de clôture.*)



Asa N. Le Flamboy, Flint, Michigan, U.S.A., 12th October, 1896; 6 years. (Filed 24th August, 1896.)

Claim.—1st. In a fence post, the combination of a metallic base section A having the head *b*, the cap B, an upper section between the cap and base section and the clamping truss rod C, substantially as described. 2nd. In a fence post, the combination with base section A and separate upper section attached thereto, of a brace for the post comprising the lateral arm G and brace arm H, substantially as described. 3rd. In a fence post, the combination with the base A and cap B, of a divided upper post section comprising the members D and D¹ adapted to be placed on opposite sides of the fence fabric, and the truss rods C for clamping said upper section in position, substantially as described. 4th. In a fence post, the combination of the base section A comprising the wings *a*, the head *b* and the flanges *c* and *d*, the cap B having the flange *e*, the aperture *j*, the lug *f* and overhanging lugs *g*, the divided post comprising the members D and D¹, and the truss rods C, having the hooks *i* at their lower ends and nuts *k* at their upper ends, substantially as described.

No. 53,745. Governor for Regulating the Speed of Machinery. (*Gouverneur pour regler la vitesse des machines.*)

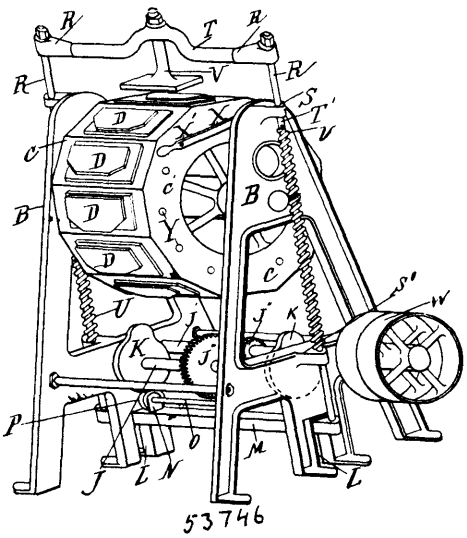


Edward Thunderbolt, Drummond street, Carlton, Victoria, Australia, 12th October, 1896; 6 years. (Filed 16th July, 1896.)

Claim.—1st. In governors for regulating the speed of machinery, the combination of an electro-magnet as G, H, adjustably secured to a lever as A, having a sliding fulcrum standard as A¹, with a

piston rod as C, C^1 adjustably secured to such lever and carrying a piston as C^2, which operates to open and close ports as D^1 in a cylinder as D, such cylinder having an outer casing as D^2, with inlet and outlet pipes as E and F, substantially as and for the purposes set forth. 2nd. In governors for regulating the speed of machinery, the combination of a lever as A, having a spring as K attached thereto at one end and at the other end to a slotted frame as K^1, in combination with a pin as L, L^1, centred upon an adjustable plate as M, and a vertical rod as N, adjustably connected with the lever A, substantially as and for the purpose set forth.

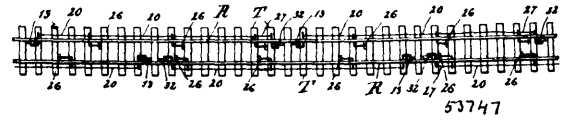
No. 53,746. Presses for Perforating, Embossing or Stamping Leather, etc. (*Presse pour perforer, bosseler ou estamper le cuire, etc.*)



Robert John Jameson, Toronto, Ontario, Canada, 12th October, 1896; 6 years. (Filed 20th August, 1896.)

Claim.—1st. In a press for perforating, embossing or stamping leather or other material, a die or punch bed revolvably mounted in the frame and arranged to carry the die or punch, substantially as specified. 2nd. In a press for perforating, embossing or stamping leather or other material, a die or punch bed revolvably mounted in the framework, having a plurality of faces, each face arranged to carry a die or punch, substantially as specified. 3rd. In a press for perforating, embossing or stamping leather or other material, a die or punch bed having recesses formed therein, a die or punch fitted to the said bed, consisting of a base plate and a moveable die or punch plate, and spring-operated guide rods within the said recesses, connected to the said die or punch plate and adapted to lift the same into its normal position when released from the pressure of the plunger, substantially as specified. 4th. In a press for perforating, embossing or stamping leather or other material, a cylindrically-shaped die or punch bed, having a hollow middle poation with solid ends, a plurality of faces formed in the said bed, each face provided with an opening into the said hollow projection, and recesses in the said solid ends to receive the guide rods of the punch or die, substantially as specified. 5th. In a press for perforating, embossing or stamping leather or other material, a die or punch bed revolvably mounted in the framework, having a plurality of faces, each arranged to carry a die or punch, and a stop to hold the said cylindrical bed in any set position, substantially as specified. 6th. In a press for perforating, embossing or stamping leather or other material, the combination of a die or punch bed revolvably mounted in the framework, a plunger acting on the die or punch bed and means for automatically operating the plunger, substantially as specified. 7th. In a press for perforating, embossing or stamping leather or other material, the combination of a die or punch bed revolvably mounted in the framework, having a plurality of faces, each fitted to carry a die or punch, a stop connected to the framework arranged to hold the said bed in any set position, a plunger arranged to act on the said bed, a cross head to which the plunger is connected and links connected to the cross head and to the cam-operated cross beam, substantially as specified. 8th. In a press for perforating, embossing or stamping leather or other material, the combination of a die or punch bed revolvably mounted in the framework, having a plurality of faces, the middle portion of the bed being hollow with an opening through each face into the hollow portion, the ends of the bed being solid with recesses formed to receive the guide rods of the dies or punches, a plunger to act on the said bed, a cross head to which the plunger is connected, links connected to the cross head and to a cross beam moving in guides in the framework, travellers carried by the cross beam, a counter shaft mounted in the framework, cams mounted on the counter shaft engaging the said travellers and means for imparting motion to the counter shaft, substantially as specified. 9th. In a press for perforating, embossing or stamping leather or other material, the combination of a die or punch bed revolvably mounted in the framework, having a plurality of faces, the middle portion of the bed being hollow with an opening through each face into the hollow portion, the ends of the bed being solid with recesses formed to receive the guide rods of the dies or punches, a plunger to act on the said bed, a cross head to which the plunger is connected, links connected to the cross head and to a cross beam moving in guides in the framework, travellers carried by the cross beam, a counter shaft mounted in the framework, cams mounted on the counter shaft and springs mounted on the said links to raise the parts into their normal position when released from the pressure of the cams, substantially as specified. 10th. In a press for perforating, embossing or stamping leather or other material, the combination of a die or punch bed revolvably mounted in the framework, having a plurality of faces, the middle portion of the bed being hollow with an opening through each face into the hollow portion, the ends of the bed being solid with recesses formed to receive the guide rods of the dies or punches, a plunger to act on the said bed, a cross head to which the plunger is connected, links connected to the cross head and to a cross beam moving in guides in the framework, travellers carried by the cross beam, a counter shaft mounted in the framework, cams mounted on the counter shaft engaging the said travellers, means for imparting motion to the counter shaft and springs mounted on the said links to raise the parts into their normal position when released from the pressure of the cams, and a stop to hold the said bed in any set position, substantially as specified.

No. 53,747. Railway Signal for Preventing the Collision of Trains. (*Signal de chemin de fer pour empêcher les collisions.*)



Pierre Bernier, Cap St. Ignace, Quebec, Canada, 12th October, 1896; 6 years. (Filed 11th September, 1896.)

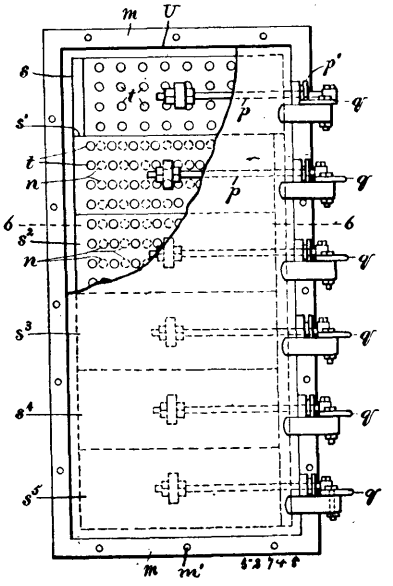
Claim.—1st. An automatic signalling device consisting of vertically sliding blocks adapted to be operated by a train running in one direction only, a pivoted bell crank lever operated by, and operating, said block, a wire or rod connecting the said lever with a series of bell crank levers, one arm of which operates spring arms vertically sliding in suitable casings, and a rod or wire connecting the last named lever with a third bell crank lever, which is also operated by and operates a sliding block, similar to the above mentioned block, substantially as shown and for the purposes set forth. 2nd. In an automatic signalling device, the combination with the vertically sliding block 12, sliding in a suitable frame, a block 13 pivoted to the top of said block, a flat spring 14 holding it in position, the said block 13 being bevelled at its free end near the rail and having an inclined plane rising from the pivoted end, a bell crank lever connected to the said sliding block, of the wire or rod 20 and bell crank levers 22 operating the sliding arms 26, substantially as set forth. 3rd. In an automatic sliding device the combination with the sliding arms 26, levers 22, rods or wires 20, lever 17 and sliding block 12, of the bell crank lever 29, rod or wire 27, connecting the said lever 29 to the levers 22, and the sliding block 30, operating and operated by the said lever 29, and the pivoted block 32, substantially as set forth.

No. 53,748. Process of and Apparatus for Treating Garbage. (*Méthode de traiter les tripailles*)

Cyrus C. Currier, Canarsie, New York, U.S.A., 13th October, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—1st. An apparatus for treating garbage, comprising a cylindrical shell having suitable heads and a shaft provided with inlet and outlet for steam, and carrying a series of heating pipes arranged parallel with the shaft and connected in series with such steam inlet and outlet, the pipes being swept through the material to heat the same, substantially as set forth. 2nd. An apparatus for treating garbage, comprising a cylindrical shell having means for discharging gases, and suitable heads provided with stuffing boxes, a shaft extended through the stuffing boxes with inlet and outlet for steam, the flanges J or their equivalents provided with the stirrers or scrapers K, and heating pipes secured to the shaft and carried through the material with the scrapers, and such pipes being connected with the steam inlet and outlet, as and for the purpose set forth. 3rd. An apparatus for treating garbage, comprising a horizontal cylindrical shell having suitable heads provided with stuffing boxes, and means for discharging gases, a shaft extended through the heads and provided with stirrers or scrapers within the shell, and one of the heads being provided with a series of grease outlets or ports arranged at different levels upon the head and provided with cocks or valves for opening either of such outlets at pleasure. 4th. In an apparatus for treating garbage, the combination, with a

chamber having communication with the rendering vessel by ports at different heights, of a series of slide valves applied to such ports

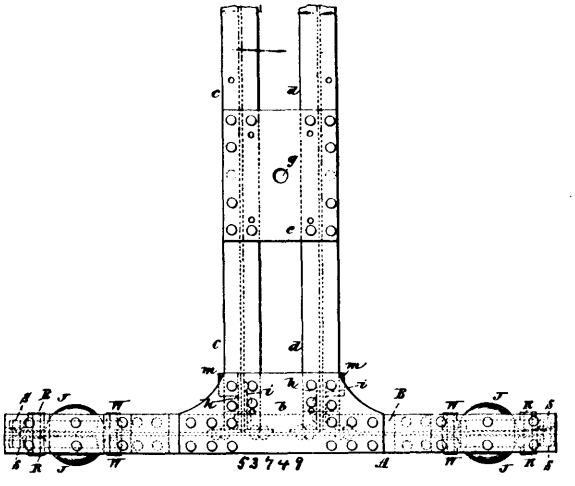


and adapted to discharge the fluid from the vessel at different heights, substantially as set forth. 5th. In an apparatus for treating garbage, the combination, with the garbage receptacle A having a connection to a condenser to produce a vacuum therein, of the head B having ports at different heights, the series of slide valves applied to the ports, the chamber fitted detachably over the valves and provided with a steam connection to press the valves upon their seats, and the valves being provided with the stems extending outside of the chamber, with means for actuating them independently, as and for the purpose set forth. 6th. In an apparatus for treating garbage, the combination, with a garbage receptacle having a series of ports at different levels, of a series of valves connecting such ports with a common chamber, and separate cocks connected to such chamber to place such series of valves in connection with separate discharge or supply pipes, as herein set forth. 7th. The process herein described for the treatment of garbage, which consists in rendering and drying the garbage in a continuous operation without the discharge of any noxious vapours or gases to the atmosphere, by first cooking the garbage in an air-tight vessel with the admixture of water if required, second drawing off and condensing the vapours generated during the cooking operation, third, drawing off the fluid grease and water from the material separately, and fourth, stirring and heating the material until dried, and condensing the vapour generated during such drying operation, substantially as herein set forth. 8th. The process herein described for rendering and drying garbage in a continuous operation without the discharge of any noxious vapours or gases to the atmosphere, which consists first in cooking the garbage in an air-tight vessel with a suitable quantity of water, second, drawing off and condensing the vapours generated during the cooking operation, third, drawing off the fluid grease and the water from the vessel separately, fourth, injecting a solvent into the vessel and stirring the material therewith to dissolve the remainder of the grease, and drawing off and condensing the vapour generated from the solvent, and fifth, stirring and simultaneously heating the material until dried and drawing off and condensing the fumes generated during such drying operation, substantially as herein set forth.

No. 53,749. Car Truck. (*Châssis de chars.*)

Edward Cliff, Newark, New Jersey, U.S.A., 13th October, 1896; 6 years. (Filed 17th September, 1896.)

Claim.—1st. In a car-truck, the metal frame side beams having the spaces for the axle boxes and springs formed within their opposite ends and having the horizontal upper and lower flanges, combined with a bolster or bolsters connecting said side frames, an extension for the pedestals below the lower flange of the side frames, and removable frames closing the outer side and bottom of the pedestal spaces and affording rubbing surfaces for the axle boxes, the inner side of said pedestal spaces within the side frames and within the extension below the side frames being also provided with rubbing surfaces for the axle boxes, substantially as set forth. 2nd. In a car truck, the metal side frames having the pedestal spaces formed at the opposite ends and open at their lower and outer sides, combined with the removable frames composed of the vertical and horizontal members in a single piece, for closing said outer and lower sides of said spaces, substantially as set forth. 3rd. In a car truck, the connected side frames having the pedestal spaces at their opposite ends for the reception of the axle boxes and springs, combined with the removal frames composed of the vertical and horizontal members for closing the outer and lower side of the said spaces, and the bolts



at the end of the said frames, one of said bolts acting as a hinge upon which said frames may be swung outward, substantially as set forth. 4th. In a car truck, the connected side frames having the flanges at their upper edges and formed with the pedestal spaces at their opposite ends, combined with the frames C, G, at opposite sides of each end of each of said frames and comprising the vertical flanges forming the rubbing surface for the axle boxes, the sections of the inverted spring receptacle extending from said vertical flanges across the pedestal spaces, and the smaller flanges at the outer edge of said receptacle and riveted to the said side frames, and the flanged removable outer side for the said pedestals secured to the side frames adjacent to the said inverted receptacles and said smaller flanges and affording rubbing surfaces for the axle boxes, substantially as set forth. 5th. In a car truck, the connected side frames having the flanges along their upper edges and formed with the pedestal spaces for the reception of the axle boxes and their springs, there being left above said spaces and below said upper flanges a shallow portion E of the web of the side frame, combined with the castings G, G, secured upon opposite sides of each end of each of said frames and comprising the vertical flanges E having the rubbing flanges I, the inverted receptacle sections J closing against said shallow portion E of the side frames, and the smaller flanges K connecting said receptacle sections, and the frames for the outer and lower side of said pedestal spaces, said frames being hinged and removable and capable of being turned outward from said spaces, substantially as set forth. 6th. In a car truck, the connected side frames having formed in their ends the pedestal spaces for the reception of the axle boxes and their springs and flanged at their upper and lower edges, combined with the flange I upon said side frames at the inner edge of said spaces, the bracket M secured to the lower flange of said side frames and having the rubbing flange P in line with said flange I, and removable frame for the outer and lower side of said spaces and having the rubbing flange X in alignment with said flanges I, P, substantially as set forth. 7th. In a car truck, the side frames having at their ends the pedestals for the reception of the axle boxes and formed with the horizontal parallel flanges along their upper and lower edges, combined with the central plates secured upon the upper flanges of said side frames, and the metal beam frames connecting said side frames and at their upper edges secured to said central plates and abutting against the inner edges of the flanges at the upper edges of said side frames, the angle plates by which said beams are connected to the web of the side frames, and the seat secured to said web above the lower flanges of the side frames and also secured to the lower flanges of said beams, substantially as set forth. 8th. In a car truck, the metal flanged beam side frames formed at their ends with the spaces for the reception of the axle boxes and their springs, said spaces being open at their outer and lower sides combined with the pedestal frames along said spaces and having the outer removable sides to permit the escape of the axle boxes, and the metal beam bolster connecting said side frames, substantially as set forth. 9th. In a car truck, the rolled flanged beam side frames formed within their ends with the spaces D open at the lower portion of their outer sides, combined with the beam connecting said side frames, and removable frames to close said open portion of said outer sides of said spaces, substantially as set forth. 10th. In a car truck, the parallel rolled flanged beam side frames provided within the web of their ends with the spaces for the axle boxes and their springs, combined with the pedestal frames and spring sockets applied to the edges of said spaces, and the beam bolster connecting said side frames and rigidly secured thereto, the outer sides of said pedestal frames being removable to permit the escape of the axle boxes, substantially as set forth.

No. 53,750. Car Truck. (*Châssis de chars.*)

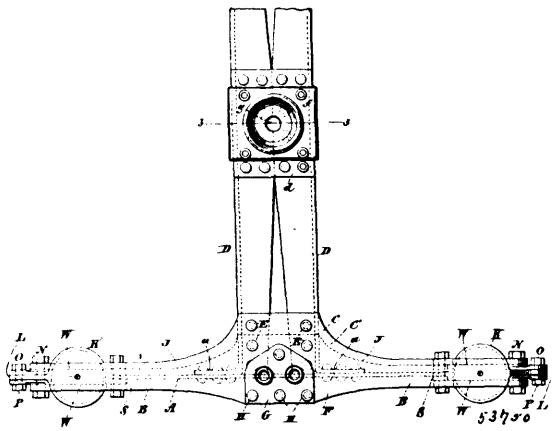
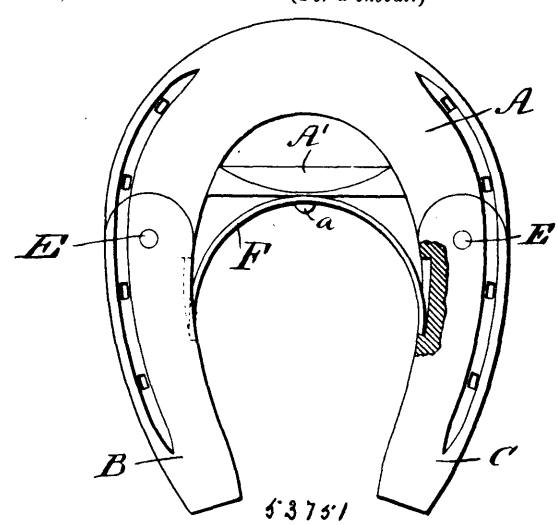


Fig. 2.

Edward Cliff, Newark, New Jersey, U.S.A., 13th October, 1896; 6 years. (Filed 17th September, 1896.)

Claim.—1st. In a car truck, the side frames A having at their upper edges the inwardly projecting horizontal flanges, and at their lower edges the inwardly projecting flanges, and at their ends the pedestals for the reception of the axle-boxes, combined with the bolster formed of the connected channel irons, whose upper and lower flanges face one another and are at their ends secured between the said flanges of the side frames, substantially as set forth. 2nd. In a car truck, the side frames having at their upper and lower edges the horizontal flanges, and provided at their ends with the pedestals for the axle-boxes, combined with the bolster connecting said sides, and formed of the channel irons whose upper and lower flanges face one another and are secured at their ends between the said upper and lower flanges of said side frames, the flanges of the said channel irons being sheared away on lines tapering outward toward the ends of said channel irons, substantially as set forth. 3rd. In a car truck, the side frames having at their upper and lower edges the inwardly projecting horizontal flanges, and provided at their ends with the pedestals for the axle-boxes, combined with the bolsters connecting said side frames and composed of the channel irons whose upper and lower flanges face one another and are secured between the upper and lower flanges of said side frames, said channel irons having at their ends the additional flanges in face to face contact with said side frame and being thereto rigidly secured, substantially as set forth. 4th. In a car truck, the side frames having the upper and lower flanges and provided with pedestals for the axle-boxes, the upper flange of said side frames having inward and outward extensions at about its centre, and the lower flange of said side frame having at its centre the inward extension, combined with the bolster connecting said side frames and being secured at its ends between the said inward extensions, the outwardly projecting extension of the said upper flanges receiving the side bearings, and the inwardly projecting extension of said upper flanges being rigidly secured to the ends of the said bolster, substantially as set forth. 5th. In a car truck, the side frames having the upper and lower flanges, and formed in one piece with the vertical flanges M, the receptacles K and flanges L, combined with the bolster connecting said side frames, the removable frames P enclosing the outer side of the spaces provided for the axle-boxes and removably secured at their upper ends to the said flanges L, and the horizontal bars removably secured at one end to said removable frames, and at the other end to the body of the side frame, substantially as set forth. 6th. In a car truck, the side frames A provided with flanges at their upper and lower edges, the vertical flanges M formed on said side frames, and the longitudinal flanges L at the upper corners of said side frame, combined with the bolster connecting said side frames and secured at its ends to said flanges at the upper and lower edges of said side frames, the removable frames P hinged to said flanges L, and enclosing one side of the spaces provided for the axle-boxes, and the removable bars W secured at one end to said removable frames P, and at the other end to the main portion of the side frame, substantially as set forth. 7th. In a car truck, the side frames having at their ends the spaces for the reception of the axle-boxes, combined with the removable frame enclosing the outer side of said spaces, the lower removable bars enclosing the lower side of said spaces, and each detachably secured at its ends to said side frame and said removable frame, and the bolster connecting said side frames, substantially as set forth. 8th. In a car truck, the side frames, and the bolster connecting said side frames, the said side frames at their ends being open to receive the axle-boxes, combined with the removable frames enclosing the outer side of said spaces and hinged to the upper corners of said side frame, and the lower removable bars enclosing the lower side of said spaces and bolted to said removable frames, substantially as set forth. 9th. In a car truck, the side frames, and the bolster connecting said side frames, the said side frames at their outer ends being provided with spaces for the reception of the axle-boxes, combined with the removable frames P enclosing the outer side of said spaces, and secured by the bolts N, O, to the upper corners of the said frame, and the cross bars W enclosing the lower side of said spaces and secured by the bolt T to said removable frames P, and by the bolt V to the main side frames, substantially as set forth. 10th. In a car truck, the side frames, and the bolster connecting said frames, the ends of said side frames being formed with the spaces for the reception of the axle-boxes, the inverted receptacles above said spaces to receive the springs, and the outwardly projecting flanges L adjacent to said receptacles, combined with the removable frames P secured to said extensions and enclosing the outer side of said spaces, and the lower bars removably secured and connecting the lower ends of said sides and the main portion of the side frames and closing the said spaces, substantially as set forth. 11th. In a car truck, the side frames and the bolster connecting said side frames, said side frames being provided at their ends with the spaces for the reception of the axle-boxes, combined with the hinged outer sides for said spaces, and the hinged lower sides for said spaces, the said lower sides being bolted to the said outer sides and secured by bolts to the main body of the side frame, substantially as set forth. 12th. In a car truck, the connected metal side frames having at their ends the spaces for the axle-boxes and their springs, combined with the removable or hinged frames enclosing the outer sides of said spaces, substantially as set forth. 13th. In a car truck, the connected side frames having at their ends the spaces for the axle-boxes and their springs, combined with the outer pedestal frames enclosing the outer sides of said spaces, and safety and hinged bolts securing said pedestal frames, substantially as set forth. 14th. In a car truck, the connected side frames having formed within their vertical web at their ends the spaces for the axle-boxes and their springs, combined with the hinged or removable frames enclosing the outer sides of said spaces and connected with said frames, substantially as set forth.

No. 53,751. Horse-Shoe. (*Fer à cheval.*)



Alexander Pearsall, Locust Valley, New York, U.S.A., 13th October, 1896; 6 years. (Filed 14th September, 1896.)

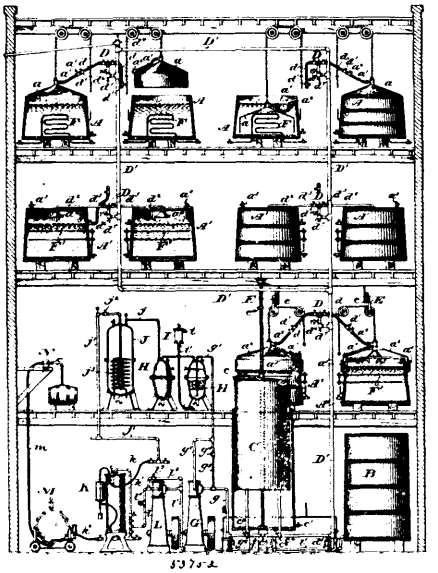
Claim.—1st. A horse-shoe comprising a segmental front section and two swinging side sections, the said side sections being pivoted to the two ends of the said segmental front portion, and means for normally spreading the two said side sections, substantially as shown and described. 2nd. In a horse-shoe, the combination of a segmental front portion and swinging side portions pivotally attached to the said front portion, and a spring for normally spreading the two said side portions, substantially as shown and described. 3rd. In a horse-shoe, the combination of a front segmental portion having a brace forming part thereof and two swinging side portions pivotally attached to the said front portion, the side portion having recesses therein for engagement with the ends of a semi-elliptical spring, which spring is attached to the brace of the said front portion of the shoe, substantially as shown and described.

No. 53,752. Method of and Apparatus for Obtaining Air-Free Carbonic Acid Gas. (*Méthode et appareil pour obtenir du gaz acide carbonique à l'épreuve de l'air.*)

The Pabst Brewing Company, assignee of Jacob F. Theurer and Paul Fisher, all of Milwaukee, Wisconsin, U.S.A., 13th October, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. The method of obtaining air-free carbonic acid gas, which consists in hermetically sealing a gas collecting space communicating with a fermenting tub or vessel, with the exception of an air escape, expelling through said air escape all the air contained in said space without admitting it into the gas receiver or delivery conduit, and finally, after the air has been thus expelled, closing said

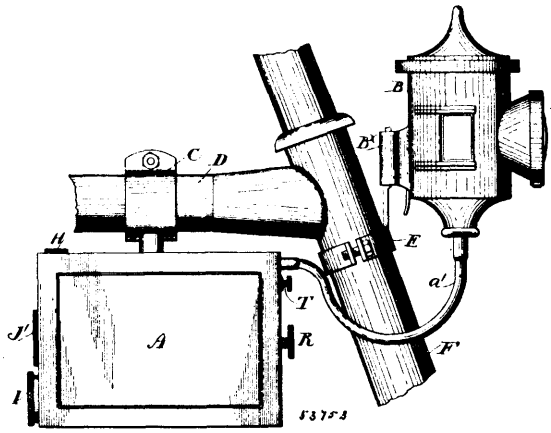
air escape and conducting off from said space the gas produced by the fermenting liquid in said vessel, substantially as set forth. 2nd.



The method of obtaining air-free carbonic acid gas, which consists in hermetically sealing a gas collecting space communicating with a fermenting tub or vessel, with the exception of an air escape, expelling through said air escape the air contained in said space by filling the same with air-free gas, without admitting the expelled air into the gas receiver or delivery conduit, and finally, after the air has been thus expelled, conducting off the gas produced by the fermenting liquid in said vessel, substantially as set forth. 3rd. The method of obtaining air-free carbonic acid gas, which consists in hermetically sealing against atmospheric air, a gas-collecting space communicating with a fermenting tub or vessel, introducing carbonic acid gas into said space from a source outside the fermenting vessel, and thereby at once expelling the confined air, and finally connecting said space with a conduit or receiver and drawing off the carbonic acid gas entering the collecting chamber from the fermenting liquid, substantially as set forth. 4th. The method of obtaining air-free carbonic acid gas, which consists in hermetically sealing a gas-collecting space communicating with a fermenting vessel, with the exception of an air escape, expelling all the contained air from said space through said air escape without admitting it into the gas receiver or delivery main, and after the air has been expelled, collecting the gas entering said space from the fermenting liquid in said vessel, and maintaining a constant pressure greater than atmospheric pressure, whereby in the event of leakage the outward pressure of the gas is caused to exclude atmospheric air and over-pressure in the fermenting vessel is prevented, substantially as set forth. 5th. The herein described operation of carbonating beer, which consists in hermetically sealing a gas-collecting space communicating with a fermenting tub, with the exception of an air escape, expelling all the contained air from said space through said air escape without admitting it into the gas delivery main or conduit, collecting within said space after the air has been expelled therefrom the carbonic acid gas given off by the fermenting liquid in said vessel, maintaining within said space a uniform gas pressure but little above atmospheric pressure, withdrawing the surplus gas from said space, and finally delivering it at a higher pressure to the carbonator, substantially as set forth. 6th. The herein described method of obtaining a constant supply of air-free carbonic acid gas for the direct and continuous carbonation of beer, which consists in hermetically sealing gas-collecting spaces communicating with fermenting vessels, with the exception of air escapes, expelling through said air escapes all the air contained in said spaces without admitting it into the delivery main or conduit, closing each air escape when the air has been completely expelled from its gas-collecting space, collecting in the air-free spaces the gas given off by the fermenting liquid, and connecting them in succession or alternation with the main or conduit by which the carbonators are supplied, substantially as set forth. 7th. In an apparatus or system for collecting carbonic acid gas, the combination of a series of fermenting tubs, close covers or hoods applied to and hermetically sealing said tubs, valved air vents for permitting the escape of all the air from said tubs without admitting it into the gas delivery main, a gas main provided with valved connections for establishing communication at will between said main and said tubs, a trap applied to said main to collect and remove moisture condensing within said main, and a safety valve opening from said main and serving to relieve or prevent undue pressure therein. 8th. The direct and continuous process of carbonating beer, which consists in the following steps: first, enclosing and hermetically sealing the fermenting space of a fermenting vessel, with the exception of an air escape, and allowing carbonic acid gas to accumulate therein until it completely drives out the contained atmospheric air and overcomes the effects of diffusion; second, closing said air vent and leading the gas thereafter produced to a conduit or receiver; third, drawing a portion of the gas from the conduit or receiver into the carbonator and utilizing the same to carbonate beer; fourth, delivering surplus gas from the conduit or receiver to the similarly enclosed fermenting space of another fermenting vessel to eliminate atmospheric air therefrom, and thereafter connecting said space with the conduit or receiver, different fermenting vessels being thus connected in succession or alternation, whereby a constant supply of air-free gas is delivered to the carbonator from the fermenting vessels. 9th. In combination with a receiving main or conduit, a fermenting vessel provided with a top or closure adapted to hermetically seal or enclose a fermenting space above the liquid of the vessel, a valve-controlled vent opening from said space and serving to permit escape of air therefrom to the atmosphere in starting the apparatus, and a valve-controlled connection between the main and the fermenting space of the vessel, whereby carbonic acid gas may be introduced to drive air from the fermenting space preparatory to collecting gas from the fermenting liquid, and gas from said liquid may thereafter be delivered to the main or conduit free from air. 10th. In combination with a plurality of fermenting vessels, each provided with a top or closure adapted to hermetically seal or enclose a fermenting space above the liquid of the vessel, valve-controlled vents through which all the air may be removed from such spaces without admitting it into the gas delivery main, a main or conduit to receive gas from said vessels, and valve-controlled connections adapted to establish communication at will between the main or conduit and the fermenting space of any of said vessels. 11th. In combination with a main or conduit, and with a gas holder in communication therewith, a series of fermenting vessels each provided with a top or closure adapted to hermetically seal or enclose a fermenting space above the liquid, valve-controlled air vents for said tops or closures, and independent valve-connections adapted to establish communication at will between the main or conduit and the fermenting space of any of the vessels, whereby gas may be delivered from the gas holder to the fermenting space of such vessels to drive the air therefrom, after which and upon closure of the air vents air-free gas may be delivered through the main to the receiver and there stored for use in removing air from freshly-filled vessels and for other purposes. 12th. The herein described apparatus for the continuous and direct carbonation of beer, comprising the following elements in combination: a series of fermenting vats, each provided with a closure adapted to seal or enclose a fermenting space, and provided with a valve-controlled air escape, a main or conduit, valve-controlled connections adapted to establish communication between the fermenting spaces and the main at will, a gas holder in communication with said main, a carbonator, a pump interposed between the gas holder and the carbonator and serving to deliver gas wholly free from air from the former to the latter under proper pressure, and a second pump communicating with a beer supply and serving to deliver beer to the carbonator under proper pressure. 13th. The herein described apparatus for continuous and direct carbonation of beer, consisting of the following elements in combination: a series of fermenting vats each provided with a closure adapted to seal or enclose a fermenting space, and provided with a valve-controlled air escape, a main or conduit, valve-controlled connections adapted to establish communication between the fermenting space and the main at will, a gas holder in communication with said main, a carbonator, a pump interposed between the gas holder and the carbonator and serving to deliver gas wholly free from air to the carbonator under proper pressure, a beer supply, a second pump communicating with the beer supply and serving to deliver beer to the carbonator under proper pressure, a filter in communication with the delivery of the carbonator, and a racking faucet in communication with the filter, whereby beer may be continuously and directly carbonated by carbonic acid gas derived from the fermenting vats, while such beer is on its way from the supply to the racking bench. 14th. In a carbonic acid gas collecting apparatus of the character described, the combination of a fermenting vessel having a seal or closure for the fermenting space, a main or conduit to convey gas from said space, and a pipe connected with the main and having a coupling at its free end provided with a valve, whereby air may be excluded from said pipe while the latter is disconnected from the fermenting space of the vessel. 15th. In carbonic acid gas collecting apparatus of the character described, the combination of a number of fermenting vessels having seals or closures for the fermenting spaces, a main or conduit to convey gas from said spaces and a pipe connected with the main and provided with a valve at or near its junction with the main, and an associated air vent valve between it and the fermenting vessels, substantially as set forth. 16th. The herein described operation of carbonating beer, which consists in the following steps: first, enclosing and hermetically sealing the fermenting space of a fermenting vessel with the exception of an air escape, and allowing carbonic acid gas to accumulate therein until it completely displaces the contained air and overcomes the effects of diffusion; second, excluding the air thus displaced from the gas receiver or delivery conduit; third, closing said air escape and leading the gas thereafter produced in said fermenting

space into said conduit or receiver wholly free from air; fourth, leading the air-free gas from said conduit or receiver to a carbonator and utilizing same to carbonate beer, substantially as set forth.

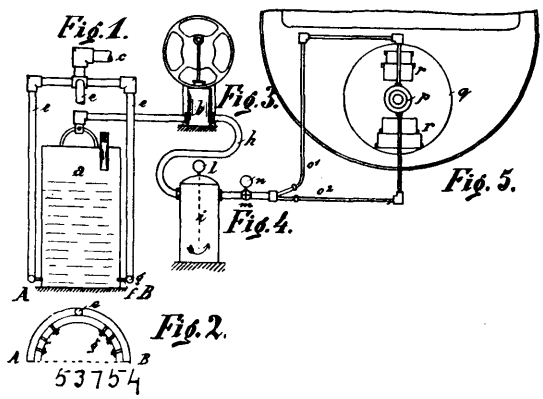
No. 53,753. Process of and Apparatus for Generating and Using Gas. (*Procédé et appareil pour la génération et l'usage du gaz.*)



Charles Edwin Rand, assignee of Eugene Thomas Turney, both of Chicago, Illinois, U.S.A., 13th October, 1896; 6 years. (Filed 11th March, 1896.)

Claim.—1st. The process of generating gas, which consists in exposing a portion of the surface of a cartridge containing a solid ingredient of the gas-generating compound to a liquid ingredient and protecting the remainder of said surface therefrom by an insoluble envelope, said cartridge consisting of a compact body of uniform sectional area in planes parallel with its exposed surface, whereby the area of the exposed surface and consequently the quantity of gas generated are kept practically constant, the products of the reaction being removed to present new surfaces throughout the process of generation, substantially as set forth. 2nd. The process of generating and using gas, which consists in first generating gas by exposing a portion of the surface of a cartridge containing a solid ingredient of the gas-generating compound to a liquid ingredient and protecting the remainder of the surface therefrom, said cartridge consisting of a compact body of uniform sectional area in planes parallel with exposed surface, whereby the area of the exposed surface and consequently the quantity of gas generated are kept practically constant throughout the process, and then using the gas directly after it is generated and at substantially the pressure at which it was generated, substantially as set forth. 3rd. In an apparatus for generating gas, the combination of a chamber adapted to contain a liquid ingredient of the gas-generating compound, a cartridge containing a solid ingredient of the gas-generating compound, an insoluble envelope for protecting a portion of the surface of said cartridge from the liquid and exposing the remainder of the surface thereto, said cartridge consisting of a compact body of uniform sectional area in planes parallel with its exposed surface, the joint between the envelope and cartridge being liquid tight, whereby the area of the exposed surface and the quantity of gas generated are kept practically constant throughout the process of generation, substantially as set forth. 4th. In an apparatus for generating and using gas, the combination of a chamber adapted to contain a liquid ingredient of the gas-generating compound, a cartridge containing a solid ingredient of the gas-generating compound, means for protecting a portion of the surface of said cartridge from the liquid and exposing the remainder thereto, said cartridge consisting of a compact body of uniform sectional area in planes parallel with its exposed surface, whereby the area of the exposed surface and consequently the quantity of gas generated are kept practically constant throughout the process, and means directly connected with the generator by which the gas is used directly after it is generated and at substantially the pressure at which it was generated, substantially as set forth. 5th. In an apparatus for generating gas, the combination of a chamber adapted to contain a liquid ingredient of the gas-generating compound, a cartridge containing a solid ingredient of the gas-generating compound, means for protecting a portion of the surface of said cartridge from the liquid and exposing the remainder of said surface thereto, said cartridge consisting of a compact body of uniform sectional area in planes parallel with its exposed surface, whereby the area of the exposed surface and consequently the quantity of gas generated are kept practically constant throughout the process, and means under the control of the operator for separating the cartridge and the liquid and thereby stopping the generation of the gas, substantially as set forth. 6th. In an apparatus for generating gas, the combination with a chamber adapted to contain a liquid ingredient of the gas-generating compound, of a tube communicating therewith, a cartridge containing a solid ingredient of the gas-generating compound arranged in the tube, said cartridge consisting of a compact body of uniform sectional area, and a packing located at the opening through which the tube and chamber communicate and fitting the cartridge, substantially as set forth. 7th. In an apparatus for generating gas, the combination with a chamber adapted to contain a liquid ingredient of the gas-generating compound, of a tube communicating therewith, a cartridge containing a solid ingredient of the gas-generating compound arranged in the tube, said cartridge consisting of a compact body and an elastic lip located at the opening through which the tube and chamber communicate and fitting the cartridge, substantially as set forth. 8th. In an apparatus for generating gas, the combination of a chamber adapted to contain a liquid ingredient of the gas-generating compound, a tube communicating therewith, a cartridge containing a solid ingredient of the gas-generating compound arranged in the tube, a spring engaging the cartridge and tending to expel it and means for resisting the expulsion, substantially as set forth. 9th. In an apparatus for generating gas, the combination of a chamber adapted to contain a liquid ingredient of the gas-generating compound, a tube communicating therewith, a cartridge containing a solid ingredient of the gas-generating compound arranged in the tube, a spring engaging the cartridge and tending to expel it and means surrounding the cartridge and preventing the liquid from entering its containing tube, substantially as set forth. 10th. In an apparatus for generating gas, the combination of a chamber adapted to contain a liquid ingredient of the gas-generating compound, a tube communicating therewith, a cartridge containing a solid ingredient of the gas-generating compound arranged in the tube, a spring engaging the cartridge and tending to expel it and a reticulated diaphragm against which the end of the cartridge bears, substantially as set forth.

No. 53,754. Boiler Heating. (*Chauffage de chaudière.*)



Friedrich Grube and Emil Thurow, both of Hamburg, Germany, 13th October, 1896; 6 years. (Filed 17th September, 1896.)

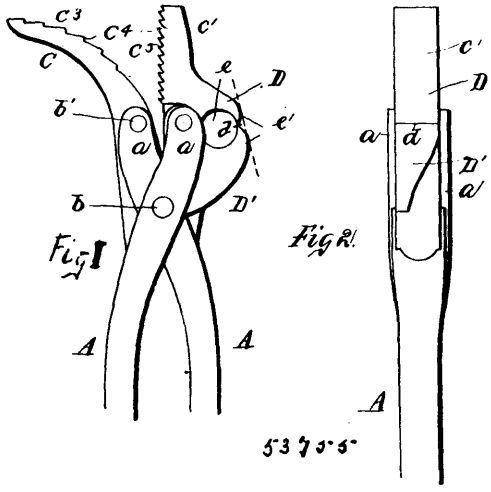
Claim.—1st. Boiler heating by means of substances proper for gasifying, through which an air-pump or any similar device sucks a current of air heated by waste heat or in any other appropriate manner for carburation's sake, conveying it further on to the fireplace of the boiler, where the mixture of gas obtained is ignited in the shape of a pear-shaped thin flame, inside and outside touched by a current of air. 2nd. A burner suitable for the heating installation described in claim 1, characterized by its nozzle-shaped opening with central air-canal (x), which fitted with hand-wheel effects the regulation of the escape of the gas, together with a bedding constituted by the conduits vertically introduced from above and below, admitting of a horizontal rotation and consequent control of the direction of the originated thin flame.

No. 53,755. Farrier's Implement. (*Outils de ferrage.*)

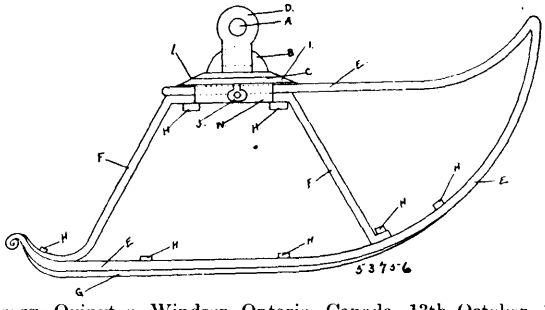
Henry M. Hoadley, Van Wert, Iowa, U.S.A., 13th October, 1896; 6 years. (Filed 17th September, 1896.)

Claim.—1st. In a farrier's implement, the combination with two handles the upper ends of which are crossed and connected together by a pivot pin, and provided below said pivot pin with perforated guide blocks, of two clinching jaws one of which carries a fixed clipping jaw and both of which clinching jaws are pivotally secured to the upper ends of the handles and have their lower ends reduced and slidably movable in said guide blocks, a movable clipping jaw pivoted at its upper end with clinching jaw carrying the fixed clipping jaw, and at its lower end to the pivot pin, and a set screw passed through one of the clinching jaws above said pivot pin to adjust the movement of both jaws, substantially as and for the purposes set forth. 2nd. In a farrier's implement, the combination with two handles the upper ends of which are crossed and connected together by a pivot pin, and provided below said pivot pin with perforated guide blocks, of two clinching jaws one of which carries a fixed clipping jaw and both of which clinching jaws are pivotally secured to the upper ends of the handles and have their lower ends reduced and slidingly movable in said guide blocks, a movable clipping jaw pivoted at its upper end with the clinching jaw carrying the

fixed clipping jaw, and at its lower end to the pivot pin, said clipping jaws having cutting edges which when closed, are within the extreme outer side of said jaws, and a set screw passed through one of the clinching jaws above said pivot pin to adjust the movement of both jaws, all substantially as and for the purposes set forth.



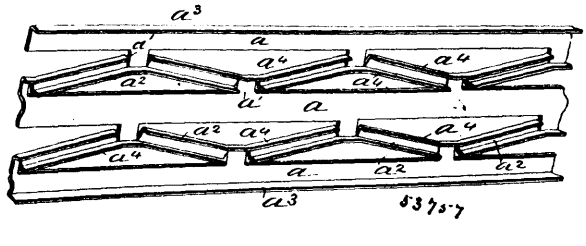
No. 53,756. Sleigh Runner for Carriage Axles.
(*Patin pour essieux de voiture.*)



George Ovington, Windsor, Ontario, Canada, 13th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. The combination of the axle of a vehicle with the bobs and means for adjusting the bobs in and out on the axle, substantially as described. 2nd. The combination of the axle of a vehicle, the bobs, and means for connecting the axle and bobs, said means made adjustable whereby the distance between the bobs can be changed to suit the track, substantially as described. 3rd. The combination of the axle of a vehicle, a bar adapted to be attached to the axle and held parallel therewith, the bobs, and means for connecting the bobs with the bar, substantially as described. 4th. The combination of the axle of a vehicle, the sleeve for the journal, a bar held to the journal outside of the sleeve and bent to extend parallel with the axle and supported at the opposite end from the axle, and a bob supported from the bar, substantially as described.

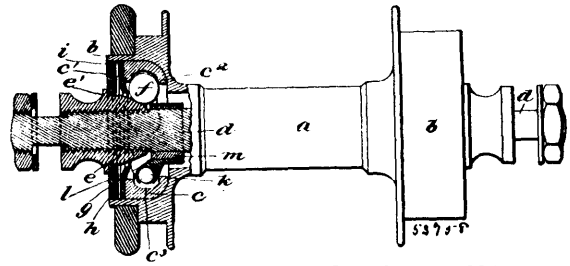
No. 53,757. Metal Lath. (*Latte metallique.*)



Dawson Brown Hilton, Brooklyn, New York, U.S.A., 13th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. A metal lath composed of strips and inclined connecting arms, having flanges that are bent at the junction with the strips, substantially as specified. 2nd. A metal lath composed of tongued strips and inclined connecting arms having open joints, and flanges that are bent in line with the open joints, substantially as specified. 3rd. A metal lath composed of tongued strips and of inclined and doubly flanged arms connecting the strips, the body of the inclined arms, and one of the flanges being severed at the junction with the tongues, substantially as specified. 4th. A metal lath composed of tongued strips, inclined and doubly flanged arms connecting the strips, one of the flanges being severed and the other flange being bent at the junction with the tongues, substantially as specified.

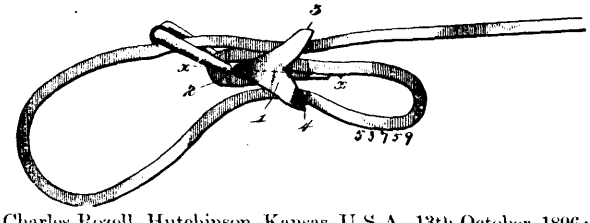
No. 53,758. Ball-Bearing for Bicycles, etc. (*Coussinet à roulettes.*)



Charles Henry Chapman, Groton, Massachusetts, U.S.A., 13th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. A ball-bearing comprising a race-way having raised tracks of different radii, bearing balls arranged thereupon, anti-friction devices arranged between such bearing balls, and a supporting device adapted to sustain such anti-friction devices with their axes at or near the dead centre line of the axes of the bearing balls which they separate, substantially as described. 2nd. A ball-bearing comprising a race-way, bearing balls arranged thereupon, anti-friction devices arranged between such bearing balls, and a supporting device adapted to sustain such anti-friction devices with their axes at or near the dead centre line of the axes of the bearing balls which they separate, substantially as described. 3rd. A ball-bearing comprising a race-way, having raised tracks, bearing balls thereon, rotary anti-friction devices, and a spider or holder in which said devices are arranged, substantially as described. 4th. A ball-bearing comprising a race-way, having raised tracks, bearing balls thereon, rotary anti-friction devices arranged in the wake of and in alternation with the balls, a spider or holder for such anti-friction devices and an eccentric adapted to move such spider or holder so as to throw some of the anti-friction devices in between the load-bearing balls and throw the others away from the remainder, substantially as described. 5th. A ball-bearing comprising a race-way, raised tracks thereon, bearing balls, anti-friction devices arranged between such balls, and a supporting device for such anti-friction devices adapted to sustain such devices in a dead centre line with the balls, substantially as described.

No. 53,759. Billet Loop. (*Ganse.*)



Charles Rozell, Hutchinson, Kansas, U.S.A., 13th October, 1896; 6 years. (Filed 19th September, 1896.)

Claim.—1st. A billet loop constructed substantially as herein set forth, the same comprising similar side pieces of substantially V form, cross bars connecting the side pieces at their angles and at the terminals of their diverging members, and flanges provided on the inner faces of the side pieces and extending in line with the cross bar connecting the side pieces at their angle and projecting in a plane passing midway between the cross bars connecting the diverging members, substantially as and for the purpose set forth. 2nd. A billet loop constructed substantially as herein set forth, comprising similarly constructed side pieces of substantially V form, a cross bar connecting the angles of the side pieces and depressed in the front side midway of its ends, cross bars connecting the terminals of the diverging members, one of the cross bars last mentioned having an inwardly-projecting stud, and longitudinal flanges provided on the inner faces of the side pieces and extending in line with the front cross bar, substantially in the manner and for the purpose specified.

No. 53,760. Boat Propelling Attachment.
(*Appareil pour propulser les vaisseaux.*)

Samuel N. Smith and Edward Saline Baring-Gould, both of Minneapolis, Minnesota, U.S.A., 13th October, 1896; 6 years. (Filed 20th March, 1896.)

Claim.—1st. A boat propelling attachment, comprising a propeller, and a motor arranged above the same, a substantially vertical driving shaft connecting said parts, and pivotal means for supporting the same upon a boat, whereby the propeller may be swung from side to side to steer a boat as well as to propel the same, sub-

stantially as described. 2nd. The combination, with a propeller upon a longitudinal shaft, of a vertical support and a vertical shaft

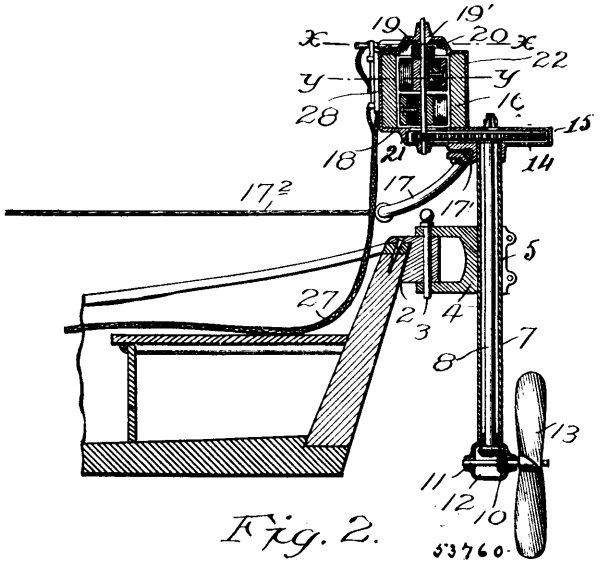
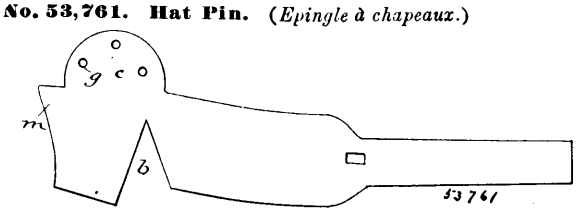


Fig. 2.

wherefrom the propeller shaft is driven means for securing said support upon a boat, a bracket provided upon said vertical support, and a motor arranged upon said bracket and from which said vertical shaft is driven, substantially as described. 3rd. The combination, with a propeller upon a longitudinal shaft, of a vertical shaft wherefrom the propeller shaft is driven, a pivotal arm wherein said shaft is vertically adjustable, steering means arrrnged thereon, means for securing said support upon a boat, a bracket provided upon said vertical support, and a motor arranged upon said bracket and from which said vertical shaft is driven, substantially as described. 4th. The combination, with the pivotal arm or bracket to be secured to the boat, of a vertically arranged tube or shaft adjustable therein, a vertical shaft provided within said tube, a box provided upon the lower end thereof, the propeller shaft having bearings therein, gears upon said vertical shaft and propelling shaft, the same meshing with one another, a propeller, a bracket provided upon the upper end of said tube, the motor supported upon said bracket, gears connecting the shaft thereof, and said vertical shaft, and steering means also provided upon said bracket, substantially as described. 5th. The combination, with the pivotal arm or bracket to be secured upon the boat, of a vertical supporting shaft or tube, a propeller having a longitudinal shaft, a vertical driving shaft, a motor geared thereto, above said arm or bracket, and the axis of said motor and said pivotal arm or bracket being substantially coincident, as and for the purpose specified. 6th. The combination, with the pivotal arm or bracket to be secured upon the boat, of a vertical supporting shaft or tube, means for adjustably locking said tube upon said arm or bracket, wherein the same is vertically adjustable, a propeller having a longitudinal shaft, a vertical driving shaft, a motor geared thereto, above said arm or bracket, and the axis of said motor and said pivotal arm or bracket be substantially coincident, as and for the purpose specified. 7th. A boat propelling attachment, comprising a propeller, and a motor arranged above the same, the shaft connecting said parts, pivoted means for supporting the same upon a boat and wherein said shaft is vertically adjustable, and the tillers secured in a suitable fastening at or near the upper end of said shaft and adjustable at various angles in said fastening, for the purpose set forth. 8th. The combination, with a propeller and its shaft, of a vertical shaft wherefrom the propeller shaft is driven, a pivotal arm wherein said vertical shaft is supported, means for securing said arm upon the boat, a bracket provided at or near the upper end of said vertical shaft, steering means carried thereby and a motor arranged upon said bracket and from which said vertical shaft is driven, substantially as described. 9th. The combination, with an arm or bracket, pivotally secured to the boat, of an upright tube adjustably secured to said arm or bracket, a driving shaft arranged within said tube, a propeller and propeller shaft supported by said tube, said propeller shaft being connected by suitable gearing to said driving shaft, a motor also supported upon said tube, and means connecting said motor and said driving shaft, for the purpose set forth. 10th. The combination, with a pivotal arm or bracket, secured to the boat, of an upright supporting tube, adjustably secured upon said arm or bracket, a driving shaft arranged in said tube, a propeller and propeller shaft supported upon said tube, gearing connecting said propeller shaft and said driving shaft, a motor arranged above said arm or bracket and supported upon said tube, suitable gearing connecting said motor with said driving shaft, all of said parts being arranged to swing or turn upon the pivotal connection between said arm or bracket and the boat, for the purpose specified.

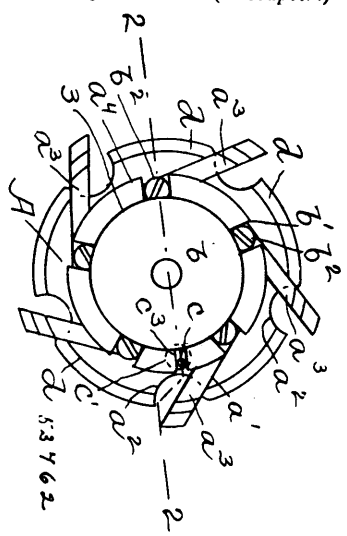
No. 53,761. Hat Pin. (*Epingle à chapeaux.*)



The Montreal Suspender and Umbrella Manufacturing Company, assignee of Isaïe Fréchette, both of Montreal, Quebec, Canada, 13th October, 1896; 6 years. (Filed 30th May, 1896.)

Claim.—1st. A guide for a hat pin comprising a straight tubular portion, an open bearing surface and an inclined portion, for the purpose set forth. 2nd. A guide for a hat pin comprising a straight end portion, an inclined end portion, and an intermediate curved portion presenting an open bearing surface, substantially as shown and described. 3rd. A guide for a hat pin comprising a straight tubular portion, an open bearing surface and an inclined portion, the other end of the inclined portion being closed, for the purpose set forth.

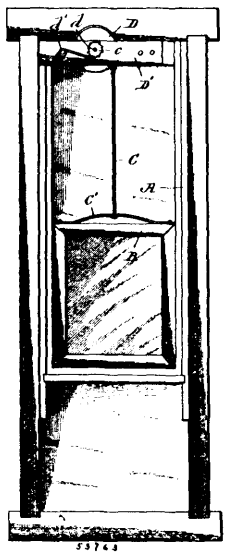
No. 53,762. Rotary Cutter. (*Découpoir.*)



Ambrose Stevens Vose, Brookline, Massachusetts, U.S.A., 13th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. In a rotary cutter, the combination of the following instrumentalities, viz.:—A body or wheel provided with a plurality of knives, blades or cutters, a device to effect the simultaneous movement or adjustment of the said knives or blades, and means connecting each knife or blade with the device for effecting the simultaneous adjustment and capable of movement independent of the said actuated device to effect the individual adjustment of the said knives or blades, for the purpose specified. 2nd. In a rotary cutter, the combination of the following instrumentalities, viz.:—A body or wheel provided with a plurality of slots, knives or blades movable in said slots, an actuating ring carried by the body, and devices to connect the said knives or blades with the actuating ring to permit the knives or blades to be simultaneously adjusted by movement of said ring, the said devices being each capable of movement to effect individual adjustment of the said knives while the ring remains stationary, substantially as described. 3rd. In a rotary cutter, the combination of the following instrumentalities, viz.:—A body or wheel provided with a plurality of knives or blades, an actuating device to effect the simultaneous movement or adjustment of the said knives or blades, and an independent adjusting device for a knife or blade capable of effecting individual adjustment of the blade without disturbing the relation of the said blade to the actuating device, which effects the simultaneous adjustment, for the purpose specified. 4th. In a rotary cutter, the combination of the following instrumentalities, viz.:—A body or wheel provided with inclined slots, knives or blades movable in said slots, an actuating ring carried by the body, and devices to connect the said knives with the actuating ring, and each consisting of a head extended into an opening in the said ring, and a pin eccentrically mounted on said head and loosely extended into a hole in the knife or blade, substantially as described. 5th. In a rotary cutter, the combination of the following instrumentalities, viz.:—A body or wheel provided with a plurality of blades, knives or cutters, an actuating device to effect simultaneous adjustment thereof, and devices connecting said blades with the common actuating device, and each consisting of a head provided with an eccentrically mounted pin extended loosely into a hole in the knife or blade, substantially as described.

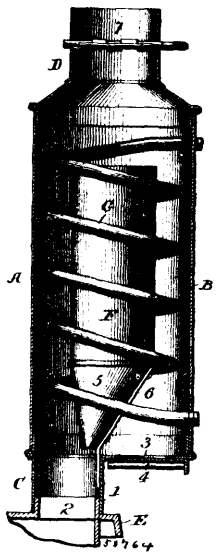
No. 53,763. Window. (*Fenêtre.*)



Richard Lewis Brown, Salisbury, North Carolina, U.S.A., 13th October, 1896; 6 years. (Filed 19th September, 1896.)

Claim.—The combination with a sliding window, of a spring bar secured to the upper end of the sash, a chain or cord connected with said bar and a spring drum around which said chain or cord is wound and to which one end is attached, substantially as described.

No. 53,764. Water Heater. (*Chauffeur à eau.*)

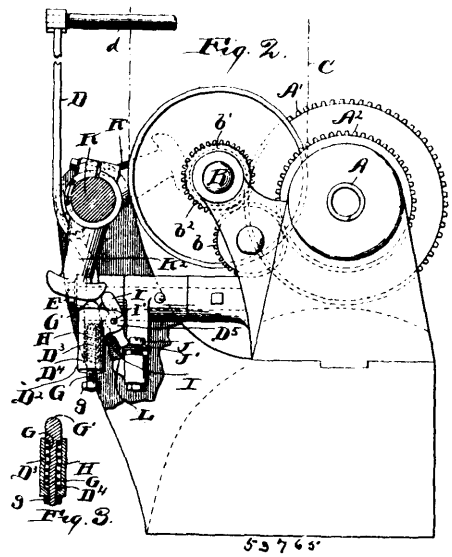


Zacharia David Johns, Visalia, and George X. Wendling, Hanford, both of California, U.S.A., 14th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. In a water heater, the combination with the casing having inlet and discharge openings, of a circulating pipe within the casing, and an open ended deflecting and conveying cylinder within the casing, the ends of which align with the inlet and discharge openings of the casing, substantially as described. 2nd. In a water heater, the combination with the casing having inlet and discharge openings, of an open ended deflecting and conveying cylinder within the casing, formed conical at its lower end, the ends of the cylinder aligning with the inlet and discharge openings of the casing, and a coiled circulating pipe surrounding the said cylinder, substantially as described. 3rd. In a water heater, the combination with a sectional casing formed with inlet and discharge openings, the sections of said casing being detachable, of a heat deflecting and radiating body within the casing supported wholly upon one of the sections thereof, and a circulating pipe also arranged within the casing and supported wholly upon a section different from that which supports the said radiating and deflecting body, substantially as described. 4th. In a water heater, the combination with a closed casing comprising a central section, a top section provided with a discharge opening and a bottom section having an inlet opening, of a deflecting and radiating body provided with a conical end arranged to align with the inlet opening, said radiating body being supported wholly upon one of the sections of the casing, and a circulating pipe coiled around the radiating body and supported wholly upon a section of the casing different from that which supports the radiating body, substantially as described. 5th. In a water heater, the combination with a closed casing provided at its top with a central discharge opening and with an inlet opening located at one side of its bottom, of an open ended radiating and conveying cylinder aligning with the discharge opening at its upper end and at its bottom provided with a conical cap extending laterally into alignment with the inlet opening, and a circulating pipe coiled around the cylinder, substantially as described.

No. 53,765. Belt-Shifter.

(*Appareil à changer les courroies.*)

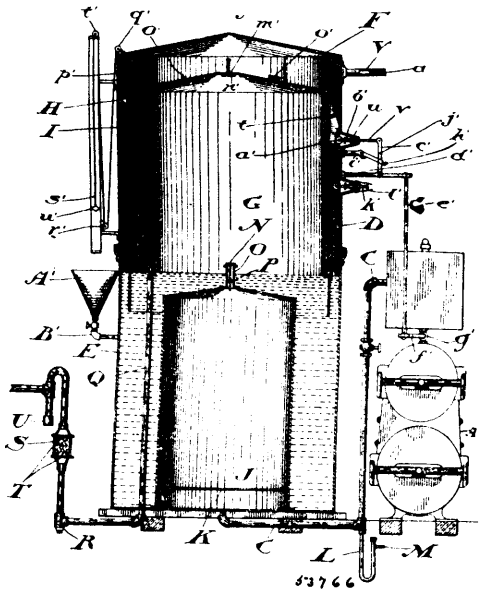


The Cleveland Machine Screw Co., assignee of James Bruce, all of Cleveland, Ohio, U.S.A., 14th October, 1896; 6 years. (Filed 19th September, 1896.)

Claim.—1st. In a belt-shifter, the combination of a belt-shifting lever, means for oscillating said lever, means for rendering said oscillating means operative and means for rendering said oscillating means inoperative, substantially as set forth. 2nd. In a belt-shifter, the combination of a belt-shifting lever, springs adapted to oscillate said lever, means for rendering said springs operative and means for locking and unlocking said lever, substantially as set forth. 3rd. In a belt-shifter, the combination of a belt-shifting lever provided with two arms extending in opposite directions from said lever, springs adapted to engage and exert pressure against said arms whereby they are alternately elevated, means for alternately compressing said springs and rendering them operative and means for alternately locking and unlocking said lever in inoperative and operative positions respectively, substantially as set forth. 4th. In a belt-shifter, the combination of an upright belt-shifting lever provided with two right angular arms extending in opposite directions therefrom, each of said arms being provided with an upright hole therethrough, a spring within said hole, a pin also operating vertically therein and held in its upper or normal position by said spring, tilting latches adapted to lock the arm in its uppermost positions, and revolving arms adapted to alternately engage said pins, depress said springs and unlock said arms, whereby said springs are rendered operative and are permitted to oscillate said lever, substantially as set forth. 5th. In a belt-shifter, the combination of an upright bolt-shifting lever provided, at its lower end, with two arms projecting laterally of the lever axis in opposite directions, respectively, a yielding member suitably supported from each of said arms, said yielding member, in its normal position, projecting a suitable distance above the respective arm, means for locking each lever-arm in its elevated position, means for limiting the depression of each lever-arm, two suitably actuated revolving members arranged a suitable distance apart circumferentially of their axes and adapted to engage and depress the different aforesaid yielding members respectively, and the respective lever arm, and render inoperative the means employed to lock the respective lever-arm in its elevated position, the arrangement of parts being such that the pressure exerted by either one of the revolving members upon the respective lever-arm shall, as soon as the arm-locking means if rendered inoperative, result in the oscillation of the belt-shifting lever from the one to the other of its extreme positions, substantially as set forth. 6th. In a belt-shifter, the combination

of an upright belt-shifting lever fulcrumed at or near its lower end, and provided at said end with two arms projecting laterally of the lever axis in opposite directions respectively, of a yielding member supported from each of said arms, said yielding member, in its normal position, projecting above the respective arm a suitable distance, a tilting latch supported from each of said lever-arms adjacent to the aforesaid yielding member of the respective arm, said latch, in the elevated position of the supporting lever-arm, locking said arm in said position, a stop for each lever-arm for limiting the downward movement of said arm, a suitably actuated revolving member operating adjacent to each of the aforesaid yielding members and adjacent latch, said arm being adapted to depress said yielding member and render the arm-locking latch inoperative and exert a pressure downwardly upon the respective lever-arm, substantially as set forth. 7th. In a belt-shifter, the combination of an upright belt-shifting lever fulcrumed at or near its lower end, and provided at said end with two arms D^1 and D^2 projecting laterally of the lever-axis in opposite directions, respectively, each of said arms being provided with an upright hole D^3 therethrough, the pins G, springs H, tilting latches I, stationary inclines or bevelled surfaces J^1, stops L, and a suitably actuated shaft K and its arms K^1, K^2, substantially as set forth.

No. 53,766. Apparatus for the Production and Storage of Acetylene Gas. (*Appareil pour la production et emmagasinage du gaz d'acétylene.*)



Ernest Albert Morton-Brown and Frank Maundrell, both of Woodstock, Ontario, Canada, 14th October, 1896; 6 years. (Filed 14th September, 1896.)

Claim.—1st. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted therein and adapted to contain calcium carbide, substantially as and for the purpose specified. 2nd. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted therein and adapted ta contain calcium carbide, and a spray tube adapted to convey water to the carbide within the cylinder, substantially as and for the purpose specified. 3rd. In an apparatus for production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted therein and adapted to contain calcium carbide, and a spray tube connected to a water supply and located above the cylinder and adapted to convey water to the carbide through the openings in the cylinder, substantially as and for the purpose specified. 4th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted therein and adapted to contain calcium carbide, and a spray tube adapted to convey water to the carbide within the cylinder, and means for rotating the cylinder by the action of the gas generated, substantially as and for the purpose specified. 5th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted therein and adapted to contain calcium carbide, and a spray tube connected to a water supply and located above the cylinder and adapted to convey water to the carbide through the openings in the cylinder, and means for rotating the cylinder by the action of the gas generated, substantially as and for the purpose specified. 6th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber. in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber and at the other in a bearing piece formed on a removable cover, a connection between the end of the cylinder and the journalled bearing piece to adapt them to rotate together, and means for rotating the said bearing piece, substantially as and for the purpose specified. 7th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber and at the other in a bearing piece formed on a removable cover, a connection between the end of the cylinder and the journalled bearing piece to adapt them to rotate together, and means for rotating the said bearing piece by the action of the gas generated, substantially as and for the purpose specified. 8th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber and at the other in a bearing piece formed on a removable cover, a connection between the end of the cylinder and the journalled bearing piece to adapt them to rotate together, and means for rotating the said bearing piece, a spray tube within the chamber, a water tank with which the said spray tube is connected, and a pipe connecting the chamber with the space above the water in the tank, substantially as and for the purpose specified. 9th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber and at the other in a bearing piece formed on a removable cover, a connection between the end of the cylinder and the journalled bearing piece to adapt them to rotate together, and means for rotating the said bearing piece, a spray tube within the chamber, a water tank with which the said spray tube is connected, and a pipe connecting the chamber with the space above the water in the tank, and a removable cover closing an opening in the lower part of the chamber for the removal of the line dropped through the cylinder, substantially as and for the purpose specified. 10th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber and at the other in a bearing piece formed on a movable cover, a connection between the end of the cylinder and the joarnalled bearing piece to adapt them to rotate together, a lever pivoted on the said bearing piece, a pawl pivoted on the said lever, a ratchet-wheel formed on the said bearing piece with which the said pawl engages, a connecting rod pivoted to the end of the lever, a cylinder communicating with the chamber, a piston adapted to reciprocate within the said cylinder and connected with the end of the aforesaid connecting rod, a valve adapted to close an opening formed in the piston, means for automatically opening the valve when the piston has been raised to a pre-determined extent and a gas exit above the piston, substantially as and for the purpose specified. 11th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber and at the other in a bearing piece formed on a removable cover, a connection between the end of the cylinder and the journalled bearing piece to adapt them to rotate together, a portion of the said bearing piece extending outside the chamber so that means for rotating the cylinder by hand or machinery may be applied thereto, substantially as and for the purpose specified. 12th. In an apparatus for the production and storage of acetylene gas, a generator comprising a chamber, in combination with a rotatable perforated or open-work cylinder pivoted at one end in a bearing piece journalled in one end of the chamber, and at the other in a bearing piece formed on a removable cover, a connection between the end of the cylinder and the journalled bearing piece to adapt them to rotate together, a lever pivoted on the said bearing piece, a pawl pivoted on the said lever, a ratchet-wheel formed on the said beaaing piece with which the said pawl engages, a pawl pivoted on the wall of the chamber and adapted to engage with the said ratchet-wheel to prevent back motion, a connecting rod pivoted to the end of the lever, a cylinder communicating with the chamber, a piston adapted to reciprocate within the said cylinder and connected with the end of the aforesaid connecting rod, a valve adapted to close an opening formed in the piston, means for automatically opening the valve when the piston has been raised to pre-determined extent and a gas exit above the piston, substantially as and for the purpose specified. 13th. In apparatus for the production and storage of acetylene gas, the combination of a tank adapted to contain water, a condenser located within the tank and having a gas inlet below and an exit above the water level in the tank, and a holder of ordinary construction suitably supported to rise and fall in the tank according to the quantity of gas therein received from the condenser, substantially as and for the purpose specified. 14th. In apparatus for the production and storage of acetylene gas, the combination of the tank E, the condenser J, provided with a gas inlet and outlet, the diaphragm K, having an opening or openings round its periphery, and the holder G, substantially as and for the purpose specified. 15th. In apparatus for the production and storage of acetylene gas, the combination of the tank E, the condenser J, provided with a gas

inlet and the outlet valve N, the diaphragm K, having an opening or openings round its periphery, and the holder G, substantially as and for the purpose specified. 16th. In apparatus for the production and storage of acetylene gas, a gas holder and tank, in combination with a gas exit pipe communicating with the interior of the holder, a safety chamber being formed in the said exit pipe, its ends being formed by two gauze diaphragms, and its body filled with loose asbestos fibres or crushed pumice, substantially as and for the purpose specified. 17th. In apparatus for the production and storage of acetylene gas, a gas holder and tank, in combination with the gas exit pipe Q, shaped as shown, and communicating with the interior of the holder, and the plug R and cap U, located as shown, safety chamber with gauze diaphragms being located in the said exit pipe, substantially as and for the purpose specified. 18th. In apparatus for the production and storage of acetylene gas, a generator, a gas holder, a tank and a condenser located within the tank, in combination with a pipe connecting the generator with the bottom of the condenser, and a water seal connected to the said pipe, and provided with an overflow to permit of the escape of water entering the pipe from the condenser, substantially as and for the purpose specified. 19th In apparatus for the production and storage of acetylene gas, a generator, a gas holder, a tank and a condenser located within the tank, in combination with a pipe connecting the generator with the bottom of the condenser, and a water seal connected to the said pipe and provided with an overflow to permit of the escape of water entering the pipe from the condenser, and a check valve located in the said pipe between the water seal and the generator, substantially as and for the purpose specified. 20th. In apparatus for the production and storage of acetylene gas, a tank, and a gas holder provided with guide wheels, in combination with a closed cover to the tank, provided with guides for the said guide wheels, and an exit pipe, substantially as and for the purpose specified. 21st. In apparatus for the production and storage of acetylene gas, a gas holder suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with a generator, a water supply pipe leading to the generator, a valve in the said pipe, a lever connected to the spindle of the valve, a bridge with an inclined face connected to the side of the gas holder, a suitably supported spindle adapted to be moved by the said bridge, and connected directly or indirectly with the valve stem lever, and means tending to keep the spindle pressed inwardly, substantially as and for the purpose specified. 22nd. In apparatus for the production and storage of acetylene gas, a gas holder suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with a generator, a water supply pipe leading to the generator, a valve in the said pipe, a lever connected to the spindle of the valve, a bridge with two inclined faces set in reverse directions one above the other, connected to the side of the gas holder, a suitably supported spindle adapted to be moved by the said bridge, and connected directly or indirectly with the valve stem lever, and means tending to keep the spindle pressed inwardly, substantially as and for the purpose specified. 23rd. In apparatus for the production and storage of acetylene gas, the gas holder D, suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with a generator, the water supply pipe B leading to the generator, the valve g^1, the lever f^1, connected to the spindle of the valve, the connecting rod e^1, lever c^1, standard d^1, connected to the cover F or other suitable part, the spindle v suitably supported and adapted to be moved by the bridge t, provided with an inclined face, and a spring adapted to press the said spindle inwards, substantially as and for the purpose specified. 24th. In apparatus for the production and storage of acetylene gas, the gas holder D, suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with a generator, the water supply pipe B leading to the generator, the valve g^1, the lever f^1, connected to the spindle of the valve, the connecting rod e^1, lever c^1, standard d^1, connected to the cover F or other suitable part, the spindle v suitably supported, wheel a^1, bridge t provided with two inclined faces, and a spring adapted to press the said spindle inwards, substantially as and for the purpose specified. 25th. In apparatus for the production and storage of acetylene gas, the gas holder D, suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with a generator, the water supply pipe B leading to the generator; the valve g^1; the lever f^1 connected to the spindle of the valve; the connecting rod e^1; lever c^1; standard d^1 connected to the cover F, or other suitable part; the spindle v suitably supported; the wheel a^1; bridge t, provided with two inclined faces; a spring adapted to press the said spindle inwards, and the hook h^1 suitably pivoted and adapted to engage with the pin j^1, substantially as and for the purpose specified. 26th. In apparatus for the production and storage of actylene gas, a part adapted to rise and fall with variations in the consumption and generation of gas, and provided with a bridge with two inclined faces, in combination with a generator; a water supply pipe leading to the generator; a valve in the said pipe; a suitably supported spindle adapted to be moved by the aforesaid bridge; a spring tending to keep the said spindle pressed inwardly; and means for imparting the motion of the spindle to the valve, substantially as and for the purpose specified. 27th. In apparatus for the production and storage of acetylene gas, a gas holder suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with two contact springs suitably supported and insulated; a spindle; a spindle suitable supported and adapted to make and break contact between the springs; a bridge with an inclined face adapted to move the said spindle outwardly, and a spring adapted to move it outwardly, substantially as and for the purpose specified. 28th. In apparatus for the production and storage of acetylene gas, a gas holder suitably arranged and supported to rise and fall with variations in the consumption and generation of gas, in combination with two contact springs suitably supported and insulated; and means for making the contact by the descent of the holder, substantially as and for the purpose specified. 29th. In apparatus for the production and storage of acetylene gas, a tank; a closed cover with an air outlet and a gas holder, in combination with a suitably-supported index board outside the cover; a cord attached at one end to the holder and passing through a hole in the cover and round a series of pulleys; and a pointer or weight connected to the other end of the cord to indicate by its position the exact height of the holder, substantially as and for the purpose specified. 30th. In apparatus for the production and storage of acetylene gas, a tank; a closed cover with an air outlet and a gas holder, in combination with a relief valve located in the top of the holder and adapted to open when pressed by the holder against the inside of the top of the cover, substantially as and for the purpose specified. 31st. In apparatus for the production and storage of acetylene gas, a tank and a gas holder, in combination with a relief valve located in the top of the holder and adapted to open, when pressed by the holder, against any fixed part located above the holder, substantially as and for the purpose specified.

No. 53,767. Nut and Bolt Lock.

(*Arrête-écrou et boulon.*)

Fig. 1

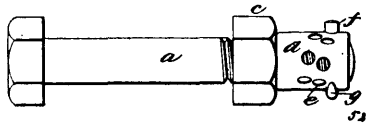
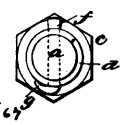


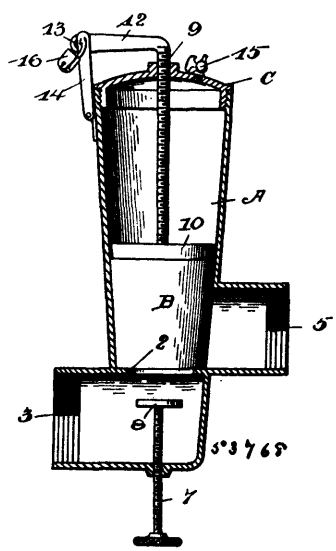
Fig. 2



Alvin Nelson Woodard, Abraham Small and George Breidenstein, all of Mansfield, Ohio, U.S.A., 14th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. A nut or bolt lock comprising an independent, threadless sleeve, made and applied wholly independently of the nut, adapted to encircle a bolt and butt against a nut thereon, and having a series of spirally arranged holes, and a pin or key adapted to be engaged with one of said holes and a hole in the bolt upon which it is desired to lock the nut, substantially as described. 2nd. A nut or bolt lock comprising a threadless sleeve made and applied wholly independently of the nut, and having one or more series of oppositely registering spirally arranged holes, and a pin or key adapted to be passed through said holes and a hole in the bolt, to which it is applied, substantially as and for the purpose described.

No. 53,768. Valve. (*Soupape.*)

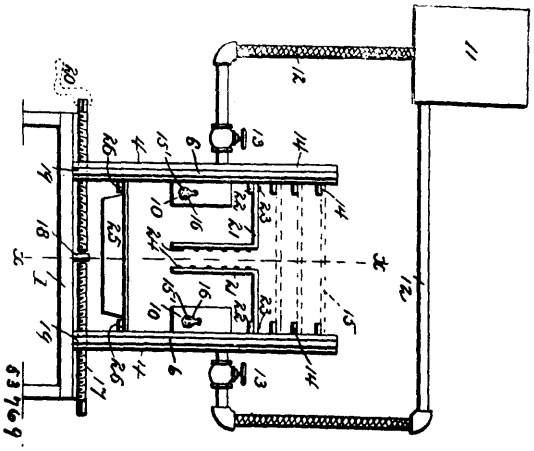


William Geary Prescott and William H. Hoffman, both of Findlay, Ohio, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—1st. A valve for stopping the ingress of air to an oil tank, comprising a tapering casing formed with an inlet pipe, and an interior annular flange at its base, a discharge pipe opening

adjacent to the base of the stem, a tapering float valve in the casing, adapted to move down therein by gravity and close the outlet port in the stem, and a cover detachably secured on the stem, substantially as described. 2nd. A valve for stopping the ingress of air to an oil tank, comprising a casing formed with an inlet pipe, and an interior annular flange at its base, and a discharge pipe leading from the base thereof, a tapering float valve in the stem, adapted to move down therein by gravity and close the outlet port in the stem, a vertically adjustable screw let through the bottom of the shell, and having a disc on its upper end to raise the valve from its seat, and a cover secured on the tapering stem, substantially as and for the purpose specified. 3rd. A valve comprising a conical casing formed with an inlet and an outlet connection, an interior annular flange or valve seat, and provided with a screw-threaded rod located in the base of the casing and having its upper end provided with a disc, a conical float valve located in the casing and a removable screw cap provided with a pet cock and a screw-threaded rod having a disc secured to its lower end, and an operating arm secured to its upper end and adapted to be detachably secured to a hinged strap on the casing, substantially as and for the purpose set forth.

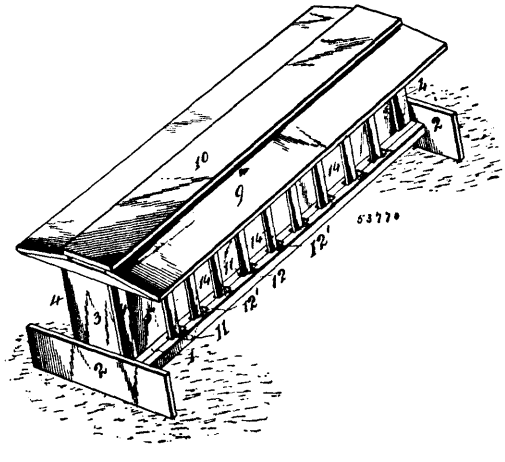
No. 53,769. Gas Oil Stove. (*Poêle à gaz et huile.*)



Sierra Léone Richards, Baltimore, Maryland, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—1st. In a stove, the combination with a base, the sides secured thereto and having a sliding engagement therewith toward and from each other, the detachable end pieces, a top, burners secured to the sides on their inner faces, and fuel supply pipes leading to said burners, substantially as set forth. 2nd. The combination with a base, sides connected therewith, means for moving the sides toward and from each other, burners secured to the inner faces of said sides, and broiling irons suspended from said sides between said burners, substantially as set forth.

No. 53,770. Feed-Trough. (*Auge.*)

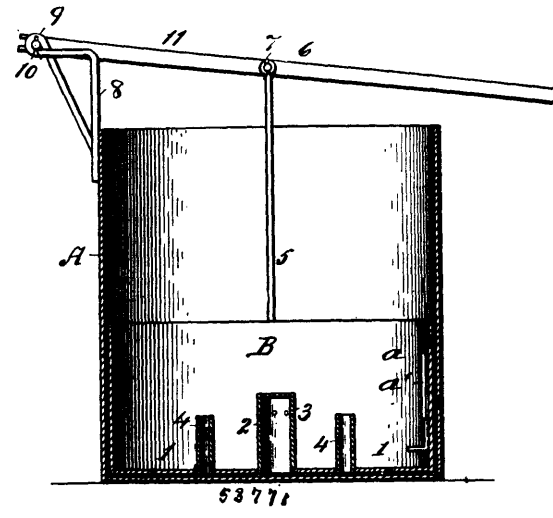


Alvin Lewis, Nora Springs, Iowa, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—In a feed-trough for feeding large and small stock, the combination with trough supported by end sills connected by vertically recessed horizontal lower strips and provided with end pieces each having a vertically disposed row of pin holes opening inwardly, longitudinal strips secured to the upper ends of supporting cleats, stanchions pivoted at ther upper ends to the upper longitudinal strips and having their lower ends adapted to swing in the recesses of the horizontal lower strips, the hopper having pin holes and pins for adjusting it vertically above the trough, and the triangular blocks provided with pins for engaging opening in the end pieces of the supporting frame, substantially as specified.

No. 53,771. Dish Washing Machine.

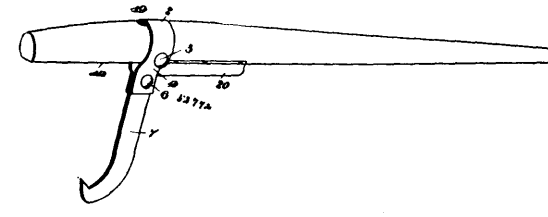
(*Plat à laver l avaisselle.*)



Christine E. Ruhl, Findlay, Ohio, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—A dish washer, comprising an outer cylindrical vessel A, a dish holder B within the outer vessel, having a perforated bottom, open end tubes in the bottom of the dish holder, and a central tube therein having a closed upper end and provided with perforations adjacent to the top thereof, a bail on the dish holder provided with a bearing pin, a bracket on the outer vessel A, provided with a bearing pin, and an operating lever detachably fulcrumed on the bearing pin of the bail and formed to detachably engage the bearing pin of the bracket on the outer vessel.

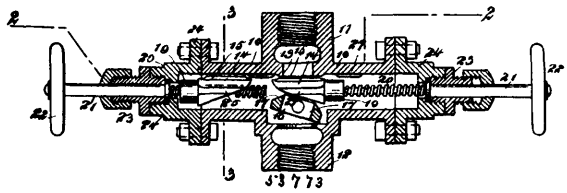
No. 53,772. Cant-hook for Lumbermen. (*Renard.*)



James Mark Ellis and George L. Ellis, both of Galesburg, Illinois, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—1st. A cant-cook or dog comprising a handle provided with a plane side and a bolt hole, in combination with an encompassing strap secured thereto by a bolt passing through said bolt hole, and having its ears or lugs provided with a bolt on which is fulcrumed a lever hook, formed with a front angular toe, and an anvil plate secured to the plane side of the handle, and formed with an integral hook to engage one end of a spiral spring, the other end of which is secured to the lower end of the lever hook opposite its toe, substantially as and for the purpose set forth. 2nd. A cant-hook or dog comprising a handle 1 having a plane side 14 and a transverse hole 5, and an adjusting set-screw 19, in combination with the strap 2, bolts 3 and 6, on the latter of which is fulcrumed the lever-hook 7 having an angular toe 18 and provided with a spiral spring 10, one end of which is secured to the hook 12 on the plate 13, the forward end of which forms an anvil for the angular toe 18 of the lever-hook 7, substantially as and for the purpose set forth. 3rd. A cant-hook or dog comprising a handle 1 having a plane side 14, an adjusting screw 19, and a transverse hole 5, in combination with the strap 2, bolts 3 and 6, the latter of which forms a fulcrum for the lever hook 7, the plate 13 provided with hook 12 passing around the bolt 3, and having a hooked end to which is secured the spiral spring 10 connected to the lever-hook 7, substantially as and for the purpose set forth.

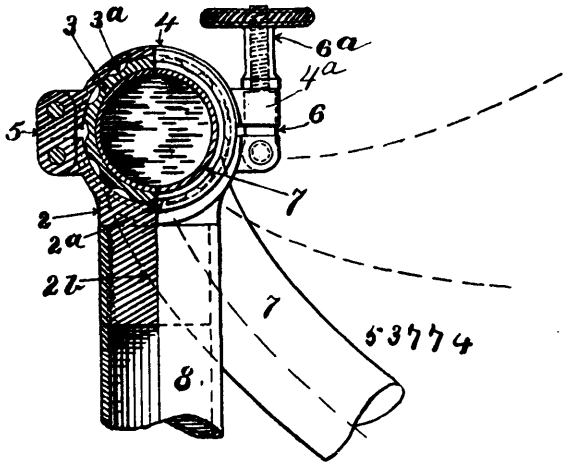
No. 53,773. Valve. (*Soupape.*)



George Washington Graffin, Allentown, Pennsylvania, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—1st. A valve comprising a casing having an inlet and an outlet, and provided with a seat at said inlet, two valves movably mounted in the casing and adapted to be seated on the valve seat, when moved in different directions and an abutment movably secured in the casing opposite the valve seat and adapted to be engaged by each valve when moved, whereby the valves are pressed down to said seat, substantially as set forth. 2nd. A valve comprising a casing having oppositely arranged inlet and outlet apertures and provided with a seat at said inlet, a valve mounted to slide in the casing and adapted to be seated on said seat, and an abutment pivoted in the casing behind said valve seat and having a perforation adapted to afford direct communication between the inlet and outlet when the valve is off its seat, said abutment being adapted to be engaged by the rear face of the valve when moved whereby said valve is pressed against its seat, substantially as set forth. 3rd. A valve comprising a casing having an inlet and an outlet, and provided with a seat at said inlet, two valves slidingly mounted in the casing and each adapted to be seated on the valve seat, and a tilting abutment mounted in the casing and adapted to be engaged and moved by the respective valves when the same are moved whereby the valve moved is pressed against its seat, substantially as set forth.

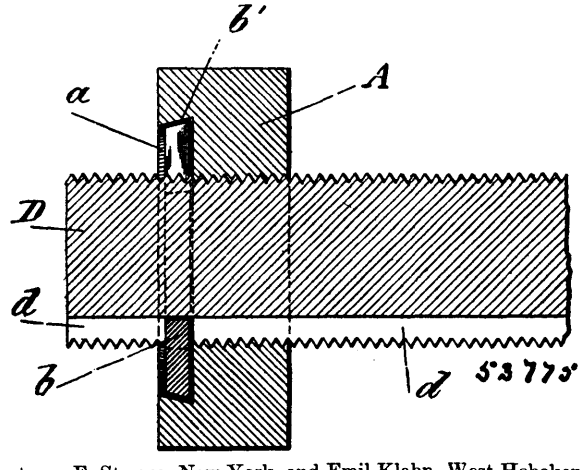
No. 53,774. Adjustable Handle Bar for Bicycles.
(*Barre de manche ajustable pour bicycles.*)



William Penberthy and Frank L. Rondebush, both of Denver, Colorado, U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—1st. The combination with a handle bar having its central portion suitably recessed, of a clamp surrounding said central portion of the handle bar, one part of the clamp having a projection adapted to enter the recesses of the bars, substantially as described. 2nd. The combination with a handle bar having its central portion suitably fashioned, of a clamp surrounding said central portion of the handle bar and comprising a stationary part and a movable part hinged to the stationary part, a link hinged to one part of the clamp and adapted to engage the projection formed on the other part, and a fastening device applied to the free extremity of the link, substantially as described. 3rd. The combination with a handle bar having its central portion provided with a series of recesses, of a clamp surrounding said recessed portion of the bar and comprising a stationary part and a movable part hinged to the stationary part, a link hinged to one part of the clamp and adapted to engage a projection formed on the other part, and a fastening device applied to the free extremity of the link, substantially as described. 4th. The combination of the handle bar, the two-part clamp embracing the central portion of the handle bar, one part of said clamp being stationary and the other part hinged thereto, and suitable fastening means comprising a link hinged to one part of the clamp and an eccentric cam attached to the link, one part of the clamp being provided with a lug or projection adapted to be engaged by the cam, substantially as described. 5th. The combination o the handle bar whose central portion is provided with a series of recesses, a two-part clamp adapted to embrace the handle bar, one part of the clamp being provided with an interior projection adapted to enter the recesses of the bar, one part of the clamp being stationary and the other part hinged thereto, and means for locking the clamp parts together comprising an eccentric cam attached to one part of the clamp and adapted to engage a projection on the other part, substantially as described. 6th. The combination with the handle bar, of the two-part clamp adapted to engage the central portion thereof, one part of the clamp being stationary and the other part hinged thereto, a link hinged between two lugs on one part of the clamp and an eccentric cam mounted on the link, the other part of the clamp being provided with a pair of lugs between which the link passes and which the cam is adapted to engage, substantially as described. 7th. The combination of the handle bar whose central portion is provided with a circular V-shaped projection, a two-part clamp adapted to fit and embrace the V-shaped portion of the handle bar and suitable means for locking the clamp in place, substantially as described. 8th. The combination of the handle bar, whose central portion is provided with a V-shaped ring or projection, a two-part clamp adapted to fit and embrace the handle bar, one part of said clamp being stationary and the outer part hinged thereto and suitable fastening means comprising an eccentric cam attached to one part of the clamp and adapted to engage a projection on the other part, substantially as described. 9th. The combination of the handle bar whose central portion is provided with a V-shaped circular projection having recesses, a two-part clamp adapted to fit and embrace the V-shaped portion of the handle bar, one part of the clamp having an interior projection adapted to enter the recesses of the bar, one part of the clamp being stationary and the other part hinged thereto, and means for locking the clamp parts together comprising an eccentric cam attached to one part of the clamp and adapted to engage a projection on the other part, substantially as described. 10th. The combination of the handle bar whose central portion is provided with a V-shaped ring or projection having recesses, a two-part clamp adapted to fit and embrace the said V-shaped portion of the handle bar, one part of the clamp being provided with an interior projection adapted to enter the recesses of the bar, one part of the clamp being stationary and the other part hinged thereto, and suitable means for locking the clamp parts together comprising a link hinged to one part of the clamp and an eccentric cam attached to the link, one part of the clamp being provided with a lug or projection adapted to be engaged by the cam, substantially as described. 11th. The combination of the handle bar, of the two-part clamps adapted to engage the central portion thereof, one part of the clamp being stationary and the other part hinged thereto, a link hinged to one part of the clamp and an eccentric cam attached to the link, the other part of the clamp being provided with a pair of lugs between which the link is adapted to pass, the said lugs being apertured to receive a lock, substantially as described.

No. 53,775. Nut Lock. (*Arrête-écrou.*)

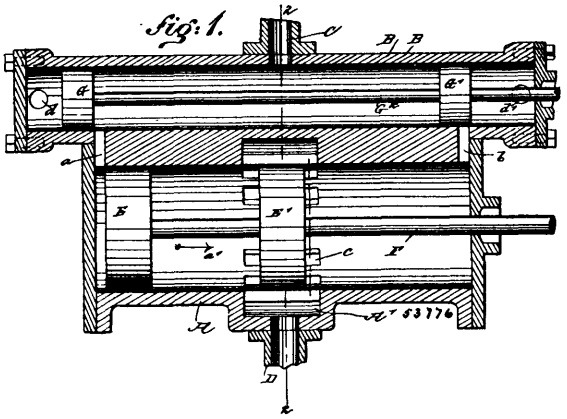


Gustavus E. Strauss, New York, and Emil Klahn, West Hoboken, New Jersey, both in the U.S.A., 14th October, 1896; 6 years. (Filed 21st September, 1896.)

Claim.—1st. A screw-nut having on its top an inwardly tapering excavation provided with lateral ribs or serrations and an open spring-acting ring having its outer periphery levelled to correspond with the taper of the excavation and placed into the latter, the corners of the ring engaging the ribs or serrations of the excavation, substantially as set forth. 2nd. A screw-nut having on its top an excavation and a spring-acting open ring placed into the excavation and being provided with an inwardly extending projection, in combination with a screw-bolt having a longitudinal groove, the said projection of the open ring extending into the said groove of the screw-bolt, substantially as set forth. 3rd. A screw-nut having on its top an excavation provided with lateral ribs or serrations and an

open spring-acting ring provided with an inwardly extending projection, the ends of the ring engaging the ribs or serrations of the said excavation, in combination with a screw-bolt having a longitudinal groove in which the projection of the said ring is located, substantially as set forth. 4th. A screw-nut having on its top an inwardly expanding excavation provided with lateral ribs or serrations and an open ring having an inwardly extending projection and a recess in its outer rim for the purpose described, the ends of the ring engaging the ribs or serrations of the said excavation, in combination with a screw-bolt having a longitudinal groove in which the projection of the said ring is located, substantially as shown and described.

No. 53,776. Steam Engine. (*Machine à vapeur.*)



William Fitch Cleveland, Eugene Wyman Cleveland, both of Rounthwaite, and Angus M. Peterson, Brandon, all of Manitoba, 14th October, 1896; 6 years. (Filed 21st September, 1896.)

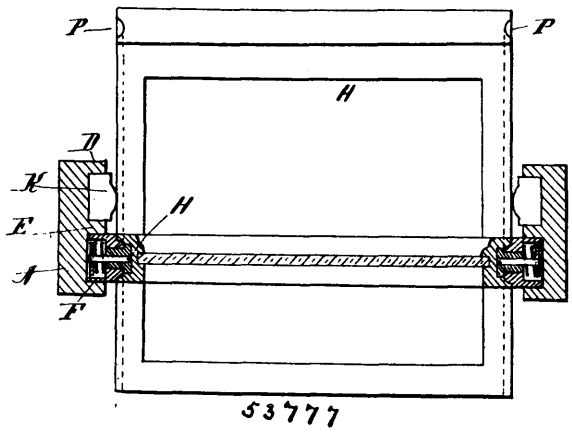
Claim.—1st. A steam engine, comprising a cylinder provided at its ends with inlet ports also forming supplementary exhaust ports, and a main exhaust port at or near the middle of the cylinder, and a double piston in the said cylinder, arranged relatively to the said main exhaust port so that when one of the pistons passes upon the exhaust port a communication is established between the ends of the cylinder and the spaces between the pistons, substantially as shown and described. 2nd. A steam engine, comprising a cylinder formed at its ends with inlet ports and at or near its middle with a main exhaust port, a double piston fitted to move in the said cylinder, each of the pistons when moving into an innermost position and passing partly over the said main exhaust port establishing a communication between the end of the cylinder and the middle of the cylinder between the pistons, a steam chest into which open the said inlet ports, and a valve fitted to slide in the said steam chest, substantially as shown and described. 3rd. A steam engine, comprising a cylinder formed at its ends with inlet ports and at or near its middle with a main exhaust port, a double piston fitted to move in the said cylinder, each of the pistons when moving into an innermost position and passing partly over the said main exhaust port establishing communication between the end of the cylinder and the middle of the cylinder between the pistons, a steam chest into which open the said inlet ports, and provided at its ends with supplementary exhaust ports, and a piston valve fitted to slide in the steam chest and adapted to open and close the said inlet ports, substantially as shown and described. 4th. A steam engine, provided with two exhaust pipes for successively carrying the exhaust of the cylinder of the engine, the ends of the exhaust pipes being arranged alongside each other, so that the first exhaust steam passing through one pipe creates a suction over the other pipe, substantially as shown and described.

No. 53,777. Window Sash Attachment.

(*Attache de cadre de fenêtre.*)

Archibald Luzerne Bolles, Luzerne Monroe Bolles, both of Brooklyn, New York, and Rufus E. Eggleston, Philadelphia, all in the U.S.A., 14th October, 1896; 6 years. (Filed 22nd September, 1896.)

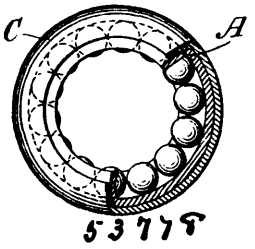
Claim.—1st. The combination with a window frame provided with the usual strips or beads at each side thereof between which the window sashes are mounted, of vertically movable stiles or bars mounted in the spaces formed by said beads or strips, and provided with counter-balance weights, which are secured thereto by means of plates at *m*, said plates being provided with notches or recesses in their upper sides and with inwardly directed shoulders or projections behind which are placed bars or rods with which are connected cords or chains which are also connected with said weights, said stiles or bars being provided with longitudinal grooves or slots in which said cords or chains are placed, substantially as shown and described. 2nd. The combination with a window frame provided with the usual strips or beads at each side thereof, between which the window sashes are mounted, of vertically movable stiles or bars mounted in the space formed by said beads or strips, and provided with counterbalance weights, which are secured thereto by means of



plates at *m*, which are set into the sides of said stiles or bars, said plates being provided with notches or recesses in their upper sides and with inwardly directed shoulders or projections behind which are placed bars or rods with which are connected cords or chains which are also connected with said weights, said stiles or bars being provided with longitudinal grooves or slots in which said cords or chains are placed, and window sashes pivotally connected with said stiles or bars, and adapted to be turned on their pivots, substantially as shown and described. 3rd. The combination with a window frame provided with the usual beads or strips at each side thereof between which the window sashes are mounted, or vertically movable stiles or bars mounted in the spaces formed by the said beads or strips, and provided with counterbalance weights and cords, said stiles or bars being so formed as to project beyond said beads or strips, and said stiles or bars being also provided with vertical convex portions on their outer surfaces, and with window sashes pivotally connected therewith, centrally thereof, the sides of the frames of said window sashes being also provided with vertical concave portions, or grooves into which the convex portions on the stiles or bars are adapted to fit, substantially as shown and described. 4th. The combination with a window frame provided with the usual beads or strips at each side thereof between which the window sashes are mounted, of vertically movable stiles or bars mounted in the spaces formed by said beads or strips, and provided with counter-balance weights and cords, said stiles or bars being so formed as to project beyond said beads or strips, and said stiles or bars being also provided with vertical convex portions on their outer surfaces, and with window sashes pivotally connected therewith, centrally thereof, the sides of the frames of said window sashes being also provided with vertical concave portions, or grooves into which the convex portion of the stiles or bars are adapted to fit, said stiles or bars being provided with springs on their outer sides, which are adapted to operate in connection with the frame of the window, to force said stiles or bars inwardly, substantially as shown and described. 5th. The combination with a window frame provided with the usual beads or strips at each side thereof between which the window sashes are mounted, of vertically movable stiles or bars mounted in the spaces formed by said beads or strips, and provided with counter-balance weights and cords, said stiles or bars being so formed as to project beyond the said beads or strips, and said stiles or bars being also provided with vertical convex portions on their outer surfaces, and with window sashes pivotally connected therewith, centrally thereof, the sides of the frames of said window sashes being also provided with vertical concave portions, or grooves into which the convex portion of the stiles or bars are adapted to fit, said stiles or bars being provided with springs on their outer sides, which are adapted to operate in connection with the frame of the window, to force said stiles or bars inwardly, said springs being set into said stiles or bars, and adapted to operate in connection with plates which are secured thereto, substantially as shown and described. 6th. The combination with a window frame provided with the usual beads or strips at each side thereof between which the window sashes are mounted, of vertically movable stiles or bars mounted in the space formed by said beads or strips, and provided with counter-balance weights or cords, said stiles or bars being so formed as to project beyond the said beads or strips, and being also provided with vertical convex portions or beads on their outer surfaces, and window sashes pivotally connected therewith and centrally thereof, the sides of the frames of said sashes being also provided vertical concave portions or grooves into which the convex portions or beads of the stiles or bars are adapted to fit, said stiles or bars being provided with spring operated plates on their outer sides, and which are adapted to press against the frame of the window, and the pivotal connection of said window sash and said stiles or bars being made by means of pivot pins which pass through plates secured to the sashes and also through extensions or cylindrical portions formed on said plates which project into the stiles or bars, said pins being provided

at their outer ends with plates mounted thereon in cavities or recesses formed in the stiles or bars, and also with spiral springs which are mounted thereon between said plates and the cylindrical extensions through which said pins pass, substantially as shown and described. 7th. The combination with a window frame, provided with the usual bead at each side thereof, between which the window sashes are mounted, of vertically movable stiles mounted in the space formed by said beads or strips, and provided with counter-balanced weights or cords, said stiles being pivotally connected with the stiles of the sash, and plates secured upon the outer side of said stiles, and provided with an inwardly directed portion, upon which is secured a spring adapted to force the stile away from the frame, and a loop or staple secured in the sides of the sashes opposite the inwardly directed portion of the plates and adapted to force said plates outwardly against the window frame to prevent the rattling of the sash, substantially as shown and described. 8th. The combination with a frame provided with a sash, stiles or bars, having a longitudinally rib or extension secured to each side of said frame within the recess or rebitted portion thereof; spring operated plates secured to said stiles or bars at each end thereof, and having an inwardly directed cylindrical portion secured to the inner surface of the same, which projects into a corresponding recess in the stiles, said sash having a longitudinal groove or recess formed in the edges thereof in which the longitudinal rib of the stiles project in each side of the frame, adapted to register said cylindrical extension, of the plates to force the same against the frame and pivoted connection between said sash and stiles to permit of the revolution of the former, substantially as described.

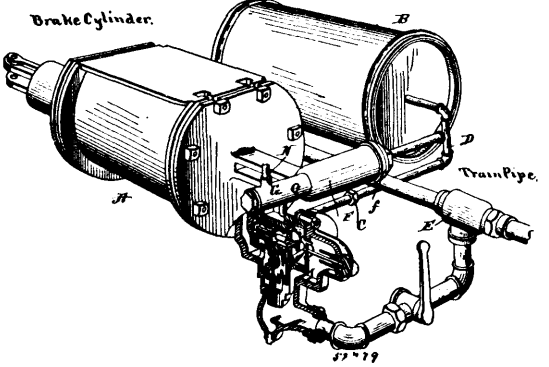
No. 53,778. Ball Bearing. (*Coussinet à boule.*)



Oliver C. Knipe, Norristown, Pennsylvania, U.S.A., 14th October, 1896; 6 years. (Filed 22nd September, 1896.)

Claim.—1st. A ball-race comprising a race-way of independent annular parts meeting in a plane passing through the balls and forming an open annular way embracing more than half of each ball, and a casing around the race-way parts. 2nd. A ball-race for a bearing comprising a sectional race-way, A, B, containing a series of balls, and a casing C, upset around the race-way to lock the sections permanently together. 3rd. A ball-race comprising a race-way of independent annular parts meeting in a plane passing through the balls and forming an open annular way embracing more than half of each ball, and means for securing the annular parts together.

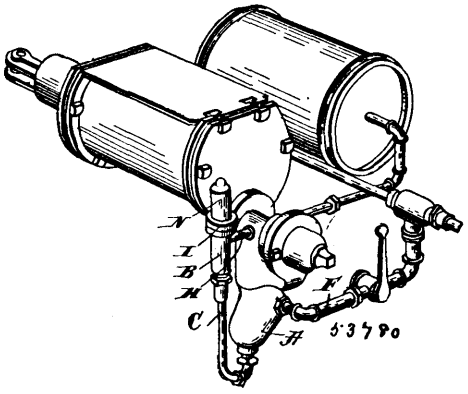
No. 53,779. Fluid Pressure Brake.
(*Frein à pression hydraulique.*)



Elmer E. Kerns, Bradford, Pennsylvania, U.S.A., 15th October, 1896; 6 years. (Filed 23rd September, 1896.)

Claim.—1st. A valve casing including two chambers, one of said chambers communicating with the auxiliary reservoir, and the other chamber communicating with the triple-exhaust and also provided with an exhaust, a rod movable longitudinally in the chambers, a piston-head on said rod within the chamber communicating with the auxiliary reservoir, a valve within the chamber communicating with the triple exhaust for controlling the exhaust of said chamber, said valve being mounted on the rod, and a spring adapted to normally hold the rod and valve in such position that the latter closes the chamber-exhaust, substantially as shown and described. 2nd. In a brake system, the centrally-partitioned casing, the rod extended therethrough, the piston secured to the end of the rod, and within the extremity of the casing connected to the auxiliary reservoir, a spring interposed between the partition and the said piston-head, and a valve in the opposite end of the casing for controlling the exhaust of the brake cylinder, the said valve being adjustable longitudinally upon the rod for the purpose, substantially as herein shown and described. 3rd. The combination of the case G, bushing L, within the case and forming a valve-chamber, said bushing formed with the exterior circumferential channel communicating with its interior and constituting exhaust N, triple-exhaust inlet O, for said bushing, a valve controlling the communication between the said inlet and exhaust, and a device actuated by the pressure from the auxiliary reservoir for adjusting said valve, substantially as shown and described. 4th. The combination of a casing having a spring seat or stop, rod I, the piston thereon and within the casing and communicating with the auxiliary reservoir, a spring interposed between the spring stop or seat and the piston-head for holding the latter normally toward the said casing end, and a valve in the casing upon the opposite end of the rod I, for controlling the brake-cylinder exhaust, the valve being held normally closed by the spring but adapted to be opened by pressure on the piston-head from the auxiliary reservoir, substantially as shown and described.

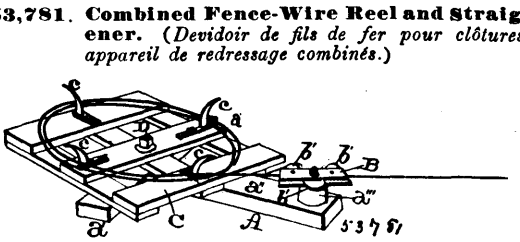
No. 53,780. Fluid Pressure Brake.
(*Frein à pression hydraulique.*)



Elmer E. Kerns, Bradford, Pennsylvania, U.S.A., 15th October, 1896; 6 years. (Filed 23rd September, 1896.)

Claim.—1st. The combination of communicating cylinders B and I, the latter having greater diameter than the former and provided with the exhaust apertures R adjacent the point of communication with cylinder B, the train-pipe and triple-exhaust connections for cylinder B, a spring-held valve normally-closing cylinder B and confining the triple exhaust therein, and a piston fitting and movable in cylinder I in unison with said valve, whereby when the valve is moved by train-pipe pressure to open communication between the cylinders, the air of the triple-exhaust escaping into cylinder I will press against and force said piston back into cylinder I and thereby increase the outlet afforded by the valve and effect a quick exhaust, substantially as shown and described. 2nd. In a fluid pressure brake, the cylinder B, the train-pipe, and the triple-exhaust connection, the spool-valve movable longitudinally in the cylinder and adapted to receive at one end the pressure from the train-pipe and between its ends reamed out to admit the exhaust from the triple-valve mechanism, the enlarged piston-chamber having the exhaust-ports and the piston-head therein which moves in unison with the spool valve, and which is concaved upon its surface adjacent the spool valve so as to deflect the exhausted air toward the exhaust-ports, substantially as shown and described.

No. 53,781. Combined Fence-Wire Reel and Straightener. (*Devidoir de fils de fer pour clôtures et appareil de redressage combinés.*)

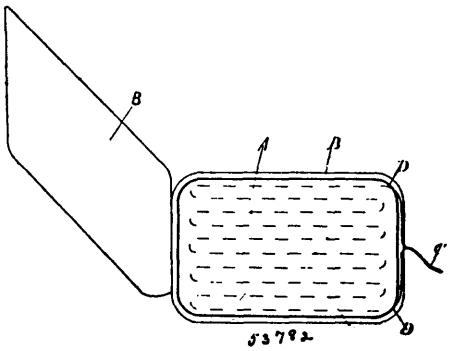


George Harrison Miller, Norwall, Ohio, U.S.A., 15th October, 1896; 6 years. (Filed 22nd September, 1896.)

Claim.—1st. The combination of the reel and the cross-shaped base having an extension and the short post mounted thereon,

with the wire-straightener pivotally mounted on the post, substantially as described. 2nd. The combination of the reel C having arms *c* for holding the wire thereon, the base having an extension a^{11} and the short post a^{111} mounted on the end thereof, with the wire-straightener B having grooved wheels b^1 triangularly disposed therein, adjustably mounted on the post, substantially as specified.

No. 53,782. Electrical Heater. (*Chauffeur électrique.*)

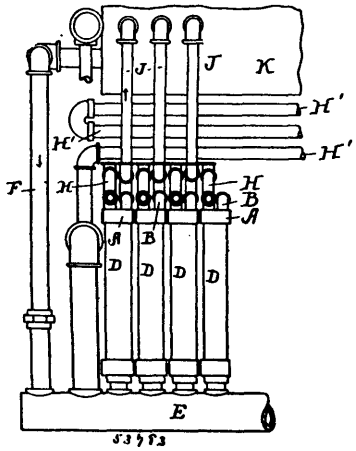


J. Arthur Trudeau, Ottawa, Ontario, Canada, 15th October, 1896 6 years. (Filed 29th September, 1896.)

Claim.—1st. A sheet of asbestos, a bare wire interlaced through it, in parallel consecutive lines or coils, connected together on the outside in a flexible cord, as shown and described for the purpose set forth. 2nd. In a foot heater, a sheet of asbestos through which is interlaced a bare wire and provided with a thick and thin sheet of asbestos on alternate sides, as shown and described for the purpose set forth. 3rd. In a heater, a sheet of asbestos having interlaced wire in combination with a thin and thick sheet of asbestos, as shown and described for the purpose set forth. 4th. In a heater, a sheet of asbestos interlaced with bare wire, two sheets of asbestos cloth, a flexible or other frame and a cloth or rubber covering, as shown and described for the purpose set forth.

No. 53,783. Steam Boiler and Coupling.

(*Chaudière à vapeur et joint de tuyaux.*)

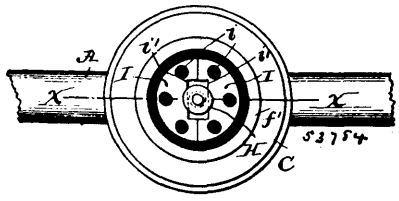


Edward Sanford Clark, Boston, Massachusetts, U.S.A., 15th October, 1896; 6 years. (Filed 24th September, 1896.)

Claim.—1st. In a steam boiler, an offset coupling for uniting tubes of different sizes, such coupling consisting of a threaded end-cap for the larger tube, and formed with a threaded coupling socket opening through the outer end and at one side of the axial centre of said cap, and adapted to receive the threaded end of the smaller tube lying at one side of the axial plane of the larger tube, the remaining portion of the end of said cap being closed, to give space for the reception of the return bend of a like tube extending thereto from a similar coupling at the opposite side of the boiler, whereby the two smaller tubes lie parallel to each other and within the plane of the larger tubes from which they extend, substantially as and for the purpose set forth. 2nd. In a steam boiler, an offset coupling for uniting tubes of different sizes in perpendicular planes, such coupling consisting of a threaded end-cap for the larger tube, and a quarter-turn screw-threaded coupling socket formed integral with the end portion of said cap and at one side of its axial centre and adapted to receive the threaded end of a tube running at right angles to the axis of the cap, the end of said cap being otherwise closed, substantially as and for the purpose set forth. 3rd. In a steam boiler, a fire-box having an end wall and side walls formed of closely set vertical water tubes supplied from horizontal manifold base pipes and suitably arranged feed-water pipes, in combination with transverse heating tubes of less diameter than the vertical tubes, crossing and recrossing the fire-box above the fuel chamber, and with couplings joining such vertical and transverse tubes, the threaded socket for the smaller tube being offset and placed at one side of the centre of the end portion of the cap for the larger tube, the remainder of such end portion being closed, substantially as set forth.

No. 53,784. Pneumatic Fire Alarm.

(*Avertisser d'incendie automatique.*)



Albert Goldstein, Philadelphia, Pennsylvania, U.S.A., 15th October, 1896; 6 years. (Filed 1st October, 1896.)

Claim.—1st. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe, connection between said air chamber and conduct pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, means to move said piston in said chamber, a piston rod provided with a wedge-shaped end, an end plate with an orifice therein, discs provided with cut-away portions detachably secured by fusible material and adapted when in position to restrain the movement of the piston rod by engagement with the wedge-shaped end thereof. 2nd. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pre-sure, a conduct pipe, connection between said air chamber and conduct pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, means to move said piston in said chamber, a piston rod provided with a wedge-shaped end, an end plate with an orifice therein, discs provided with cut-way portions detachably secured by fusible material and adapted when in position to restrain the movement of the piston rod by engagement with the wedge-shaped end thereof, a projection or ridge upon said plate and fusible material interposed between the disc and the ridge. 3rd. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe and connection between said chamber and conduct pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, means to move said piston in said chamber, a piston rod provided with a wedge-shaped end, an end plate with an orifice therein, a device detachably secured by fusible material and adapted when in position to restrain the movement of the piston rod by engagement with the wedge-shaped end thereof. 4th. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe and connection between said chamber and pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, means to move said piston in said chamber, a piston rod provided with a wedge-shaped end, an end plate with an orifice therein, a device in operative relation thereto and detachably secured from lateral movement and adapted when in position to restrain the movement of the piston rod by engagement with the wedge-shaped end thereof. 5th. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe and connection between said chamber and pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, means to move said piston in said chamber, a piston rod, an end plate with an orifice therein, a device detachably secured by fusible material and adapted when in position to restrain the movement of the piston rod. 6th. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe and connection between said chamber and pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, means to move said piston in said chamber, a piston rod, an end plate with an orifice therein, a device in operative relation thereto and detachably secured from lateral movement and adapted when in position to restrain the movement of the piston rod. 7th. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe and connection between said chamber and pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, the chamber at the piston head being hermetically sealed with fusible material, means to move said piston in said chamber and a device adapted normally to prevent the movement of said piston. 8th. An operative device for pneumatic fire alarm, consisting of an air chamber, with enclosed air at normal pressure, a conduct pipe and connection between said chamber and pipe, a plunger or piston adapted to disturb or excite the enclosed air in said chamber, the chamber at the piston head being hermetically sealed with fusible material by a sealing disc of fusible material in front of said piston head, means to move said piston in said chamber and a device adapted normally to prevent the movement of said piston.

No. 53,785. Process for Manufacturing a Water Soluble Opened Starch. (*Procédé pour la fabrication de l'empois à eau.*)

Julius Kantoronicz, Breslau, Silesia, Prussia, Germany, 15th October, 1896; 6 years. (Filed 11th May, 1896.)

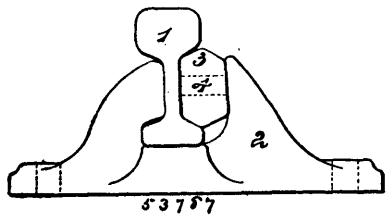
Claim.—The process of producing dry digested starch which is soluble in water, which consists in first subjecting the digested starch to the action of magnesium sulphate or a freezing process for separating it from its solution, next washing the separated starch, then drying it, and finally pulverizing it, substantially as herein set forth.

No. 53,786. Water Paint. (*Peinture à eau.*)

William Augustus Hall, Bellows Falls, Vermont, U.S.A., 15th October, 1896; 6 years. (Filed 17th September, 1896.)

Claim.—1st. A water paint, composed of a mineral-compound in powdered form as a base, and an adhesive to form an insoluble compound by oxydization, consisting of casein, and a lime, in the proportions substantially as specified. 2nd. A dry powder in the proportions as herein set forth, comprising talc as a base, an adhesive formed of casein as specified, and lime of calcium or magnesia. 3rd. A water paint, consisting of a mineral compound in powdered form as a base, an adhesive composed of casein and proto-oxide of calcium, and water, in the proportions substantially as stated.

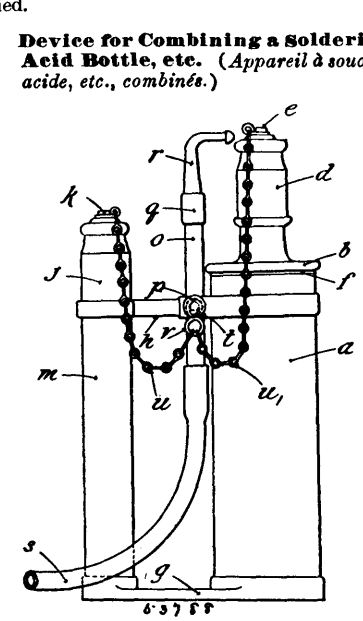
No. 53,787. Wedge or Key for securing Rails in their Chairs. (*Clé pour assujeter les rails dans leurs consinets.*)



Walter Augustus Gaskins, Cheltenham, Gloucester, England, 15th October, 1896; 6 years. (Filed 24th September, 1896.)

Claim.—1st. A wooden key of the kind herein referred to, having one or more plugs of material not liable to shrink or contract endways arranged therein transversely to its length, substantially as herein described for the purpose specified. 2nd. A wooden key provided with one or more plugs of material of the kind mentioned extending transversely through it from side to side thereof, substantially as herein described for the purpose specified. 3rd. A wooden key having one or more wooden plugs fixed therein transversely to the grain of the body of the key with its, or their ends, flush with opposite surfaces of the said key, substantially as herein described for the purpose specified.

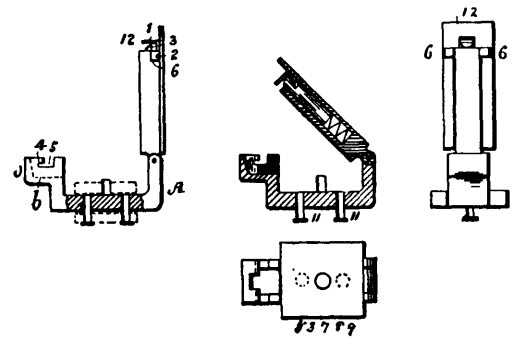
No. 53,788. Device for Combining a Soldering Torch, Acid Bottle, etc. (*Appareil à souder, bouteille, acide, etc., combinés.*)



Russell A. Willson, Marquette, Michigan, U.S.A., 15th October, 1896; 6 years. (Filed 17th June, 1896.)

Claim.—1st. In a soldering torch, the combination with cylindrical vessel A, which is provided with ring F, in connection with top B, screwed to said ring F, provided with wick C, covered by cap D, to which is secured chain U[1], which cap is provided with knob E, vessel A being provided with foundation G, bracket H and hole P, in connection with blow pipe O, provided with pipe connection Q, tip R and rubber hose S, with set screw T and ring V, and hollow handle M, secured to the base G, and provided with cap J, to which is secured chain U, all substantially as shown and described. 2nd. In a soldering torch, the combination with cylindrical vessel A, which is provided with ring F, in connection with top B, screwed to said ring F, provided with wick C, covered by cap D, to which is secured chain U[1], which cap is provided with knob E, vessel A being provided with foundation G and bracket H, with hole P, in connection with blow pipe O, provided with pipe connection Q, tip R and rubber hose S, set screw T, and ring V, hollow handle M secured to the base G, and provided with cap J, to which is attached knob K, in connection with bottle I which rests on mat L, provided with stopper N, in connection with rod X and swab Y, all substantially as shown and described.

No. 53,789. Seal Locks and in Seals therefor. (*Serrure à cachet.*)

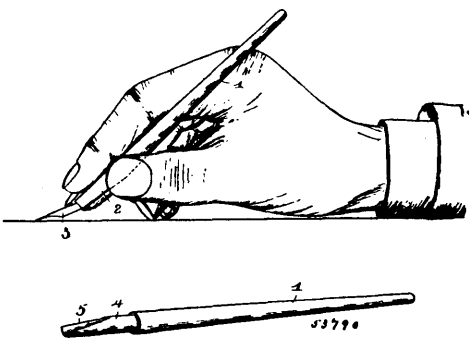


John Anschau, Glen Innes, New South Wales, Australia, 15th October, 1896; 6 years. (Filed 20th June, 1895.)

Claim.—1st. A seal lock for the purposes set forth, consisting of a jaw and hasp which are locked together, closed by a secret spring bolt which engages with a wire loop staple having a seal set upon its joint, which staple is withdrawable only when the wire is cut or the seal defaced, substantially as described. 2nd. A seal lock which is fastened by a bolt and staple in the manner set forth, wherein the part of the hasp through which the bolt end protrudes enters a box-like portion (which contains the withdrawable staple) of the jaw of the lock, which it completely closes in such a way as to prevent the insertion of a tool through the joints, substantially as described. 3rd. A seal lock whose essential operative parts consist of a secret spring bolt and a wire staple with attached seal, said staple being inserted in retaining slots in the cheeks of the staple box on the jaw of the lock before the hasp is closed and latched. 4th. A seal lock wherein a spring bolt or latch is engaged by a staple of wire whose ends terminate in a seal, so as to necessitate the cutting of the wire or the breaking of the seal before the bolt or latch can be freed, substantially as described. 5th. A seal lock for securing cord and tape, having locking mechanism as set forth in the preceding claiming clauses, and nipping jaws, substantially as shown in figs. 7, 8 and 9 of the accompanying drawings. 6th. In a lock of the kind herein described, a hood such as *b* to guard against the picking of the lock by a tool or instrument entered through the joint of the hasp and staple box, and to secure the lock from being opened by bending it back, substantially as described. 7th. In a lock of the kind herein described, a shield plate such as b^2 guarding the joint of the jaw and the hasp to prevent the picking of the lock by means of a tool or instrument entered through such joint, with or without a locking dowel such as *x*, substantially as described. 8th. In a seal lock of the kind herein described, a removable guard shield 1 to protect the bolt and to act as a check and feather for the bolt, substantially as described with reference to figs. 11 to 18 of the drawings. 9th. In a seal lock, substantially as herein described, the combination with the staple carrier slots 4 and 5 in the cheeks of the staple box, of lugs 6 on the hasp, adapted to enter the slots 5 and so lock the hasp and jaw, for the purpose set forth. 10th. In a seal lock substantially as herein described, making the cheeks of the staple box to fit close up to the bolt, or, conversely, making said bolt to fit said box, in order to prevent the springing of the staple wire by the prizing up of the hasp, substantially as described. 11th. In a seal lock, substantially as herein described, forming the parts of the hasp which rest upon the staple box, substantially as indicated by the reference figures 7, 8 and 9 in figs. 11 to 18 of the drawings, in order to prevent the insertion of a picking tool or instrument into the staple box. 12th. Seals for a seal lock which is opened by the cutting and withdrawing of a staple wire, consisting of a loop of wire whose ends are embedded in a seal or tablet, substantially as described with reference to the accompanying drawings. 13th. A "duplex seal" for a seal lock, that is to say, a seal or tablet provided with two attachments which engage with the operative parts of the lock to secure the same, one of which said attachments may be employed in the forward and return journey, respectively, of the package to which the lock is attached, and the tablet being adapted

to receive a stamp or signature on either side, substantially as described. 14th. A "duplex seal" for mail or similar purposes, for use in connection with a lock of the kind set forth in the preceding claiming clause numbered 4, consisting of two loops of wire whose ends are embedded in a tag or tablet adapted to receive the impression of a stamp on either side, substantially as described.

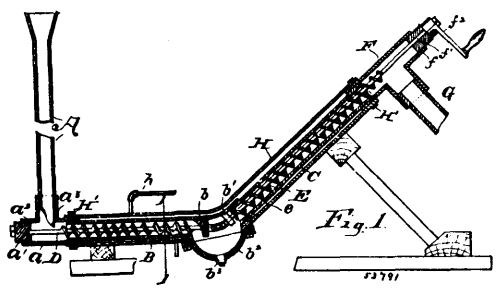
No. 53,790. Pen-holder. (*Porte-plume.*)



Frank Eugene Potts and Elmer Abram Forbes, both of Washington, Columbia, U.S.A., 15th October, 1896; 6 years. (Filed 28th August, 1896.)

Claim.—A new article of manufacture, a pen-holder having an oblique semi-circular recess in one end, in combination with a sheath provided with a correspondingly shaped tongue, shaped to retain a pen in said recess, as and for the purpose set forth.

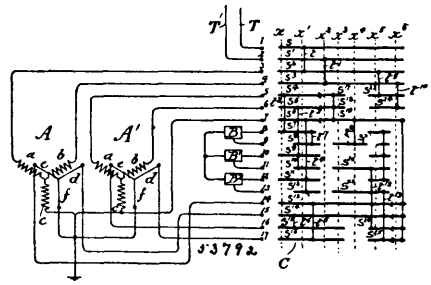
No. 53,791. Amalgamator. (*Amalgamateur.*)



Louis C. Park and Osborne Plunkett, both of Vancouver, British Columbia, 15th October, 1896; 6 years. (Filed 15th July, 1896.)

Claim.—1st. In an amalgamator, the combinations of sections of cylindrical-shaped tubes placed vertical, horizontal and sloping at an angle of about 45 degrees, of a shaft passing through the horizontal and sloping portions thereof, and being connected at its angles by a knuckle joint, the said shaft of the horizontal portion of its lengths, with cups or recesses on the outer rim thereof, and the sloping portion having a spiral coil secured to a portion thereof, substantially as set forth. 2nd. In an amalgamator, the combination of cylindrical tubes connected at angles from each other, of a conveyer and agitator suitably mounted in bearings within sections of the said tubes, and means of revolving the same, substantially as set forth. 3rd. In an amalgamator, the combination of sectional tubes, a horizontal portion with the depending cup or well, designed to hold mercury, the said well having a detachable portion, bung and plug, of a vertical portion with a depending flange designed to project downwards and lie approximate to the shaft D, substantially as specified. 4th. In an amalgamator for securing gold, the combination of vertical, horizonal and sloping tubular sections, the horizontal section lying at lower plane than the exit of the mouth of the sloping tube, the mouth of the vertical tube being placed at a much greater plane of elevation than the escape of the said sloping tube, and means for forcing auriferous matters and water through the said sections, substantially as and for the purposes set forth. 5th. In an amalgamator, the combination of sections of tubular pipes, secured together at different angles, of the horizontal portion designed to retain mercury, of a steam jacket in encircling portions of the said section, and a passage for steam thereto, of means for passing auriferous matters and water through the heated mercury by gravity, and means for intermingling the different bodies with the mercury on their way through the said tubular pipes, substantially as and for the purposes hereinbefore set forth.

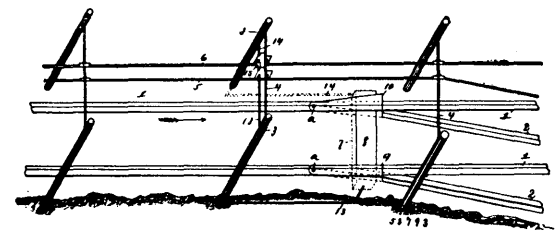
No. 53,792. Regulating Alternating Current Induction Motor. (*Moteur à induction de courant régulateur alternatif.*)



The Canadian General Electric Company, assignee of Albert H. Armstrong, Schenectady, New York, U.S.A., 15th October, 1896; 6 years. (Filed 21st March, 1896.)

Claim.—1st. The method of regulating mechanism driven by two or more induction motors, which consists in coupling the motors in tandem, then open-circuiting one motor, and finally connecting the primary members of the motors in multiple with their secondaries closed, as set forth. 2nd. The method of regulating mechanism driven by two or more induction motors, which consists in connecting the motors in tandem, shunting the primary member of the second motor so connected, and finally connecting the motors in multiple with their respective secondary members closed, as set forth. 3rd. The method of regulating mechanism driven by two or more induction motors, which consists in connecting the secondary of one such motor with the primary of a second motor, then closing the secondary of the first motor through a resistance which shunts the second motor, opening the circuit of the second motor and connecting the motors in multiple, as described. 4th. The combination of two or more induction motors geared to a common driven mechanism, and a resistance, with a switch having contacts arranged to connect the motors in tandem and in multiple, and contact for closing the secondary circuit of the first motor through resistances, and then opening the circuit of the second motor, as set forth. 5th. The combination of two or more induction motors geared to a common driven mechanism, and a resistance; with a switch having contacts so arranged that in successive positions of the switch the motors are coupled in tandem and then the second motor is shunted through a resistance, then the second motor is open circuited, and finally the motors are connected in multiple, as set forth.

No. 53,793. Electric Switch for Street Railways.
(*Aiguille électrique pour chemin de fer de rue.*)



William R. Daggett and William Heiny, both of Dayton, Ohio, U.S.A., 15th October, 1896; 6 years. (Filed 27th April, 1896.)

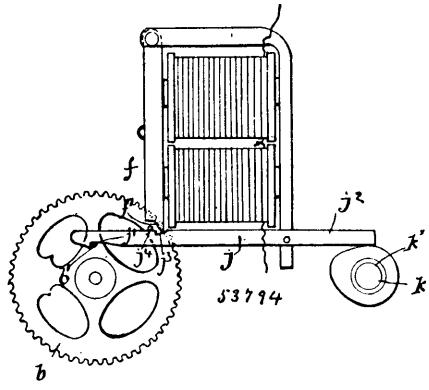
Claim.—The switch tongues, electro-magnets on the outside of said switch tongues, an armature between said electro-magnets and connected to said switch tongues, flanged rollers upon which said armature rests and is guided, conductor wires 13 and 14 in the path of the trolley wheels and adapted to convey current from the trolley wires to said electro-magnets.

No. 53,794. Signalling System. (*Système de signal.*)

The Bell Telephone Company of Canada, assignee of Charles Warren Brown, both of Montreal, Quebec, Canada, 15th October, 1896; 6 years. (Filed 28th December, 1895.)

Claim.—1st. In a fire alarm system, the combination with the street boxes thereof having signal sending mechanism and an electro-mechanical retaining and releasing device therefor, of a circuit connecting said retaining and releasing mechanism with one or more sub-stations and means contained in said sub-stations for opening and closing said circuit, substantially as and for the purpose set 2nd. In a fire alarm system, the combination with the street boxes thereof having signal sending mechanism and an electro-mechanical retaining and releasing device therefor, of a circuit connecting said retaining and releasing mechanism with one or more sub-stations, a return signal device contained in the box of sub-stations and consisting of an electro-magnetically operated knocker included in said circuit and adapted to act upon the side of such box, and means for

closing and automatically opening said circuit, as and for the purpose set forth. 3rd. In a fire alarm system, the combination with



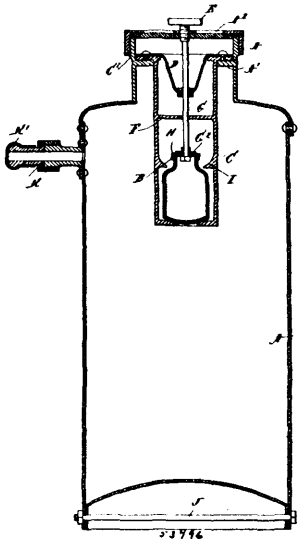
the street boxes thereof having signal sending mechanism, an electro-mechanical retaining and releasing device therefor, an open auxiliary circuit connecting said retaining and releasing mechanism with one or more sub-stations, a switch contained in each of said sub-stations and included in the auxiliary circuit and the frame for carrying, and the means, including a driving shaft and spring in the street boxes, for operating such signal sending mechanism, of a bracket projecting from said frame and carrying a pair of separated contact-pieces constituting terminals of such auxiliary circuit, a contact arm carried by such driving shaft and adapted when such signal sending mechanism is set and retained, to electrically connect such contact pieces and when said mechanism is released to disconnect said contact pieces, substantially as and for the purpose set forth. 4th. In a fire alarm system, the combination with the street boxes thereof having signal sending mechanism, of an electro-mechanical retaining and releasing device therefor, a normally open auxiliary circuit connecting said retaining and releasing mechanism with one or more sub-stations, a switch contained in each of said sub-stations and included in the auxiliary circuit and a spring operated lever, the latter adapted to normally engage and retain such signal sending mechanism and the armature of such electro-magnet normally acting to hold such lever in the position required to retain such signal sending mechanism, but adapted upon the closing of such auxiliary circuit and the energizing of said magnet to be moved and release such retaining lever, a bracket projecting from the frame in said street box and carrying a pair of separated contact pieces constituting the terminals of such auxiliary circuit, a contact arm carried by such driving shaft and adapted when such signal sending mechanism is set and retained, to electrically connect such contact pieces and when said mechanism is released to disconnect said contact pieces, and means for resetting such spring operated retaining lever, substantially as and for the purpose set forth. 5th. In a fire alarm system, the combination with the street boxes thereof having signal sending mechanism, of an electro-mechanical retaining and releasing device therefor, a normally open auxiliary circuit connecting said retaining and releasing mechanism with one or more sub-stations, a switch contained in each of said sub-stations and included in the auxiliary circuit, the frame for carrying and means including a driving shaft and spring in the street boxes, for operating such signal sending mechanism, such retaining and releasing device consisting of an electro-magnet, included in such auxiliary circuit, and a spring operated lever, the latter adapted to normally engage and retaining such signal sending mechanism and the armature of such electro-magnet normally acting to hold such lever in the position required to retain such signal sending mechanism, but adapted upon the closing of such auxiliary circuit and the energizing of said magnet to be moved and release such retaining lever, a bracket projecting from the frame in said street box and carrying a pair of separated contact pieces constituting the terminals of such auxiliary circuit, a contact arm carried by such driving shaft and adapted when such signal sending mechanism is set and retained, to electrically connect such contact pieces and when said mechanism is released to disconnect said contact pieces; and means consisting of a cam disc carried by said driving shaft for re-setting such spring operaated retaining lever, substantially as and for the purpose set forth. 6th. In a fire alarm system, the combination with the street boxes thereof having signal sending mechanism, of an electro-mechanical retaining and releasing device therefor, a normally open auxiliary circuit connecting said retaining and releasing mechanism with one or more sub-stations; a return signal device at each sub-station and consisting of an electro-magnet included in such circuit and knocker operated thereby to act upon the side of the sub-station box; a switch contained in each of said said sub-stations and included in the auxiliary circuit and the frame for carrying and the driving shaft of the means for operating such signal sending mechanism, a bracket projecting from the frame in said street box and carrying a pair of separate contact-pieces constituting the terminals of such auxiliary circuit; a contact arm carried by such driving shaft and adapted when such signal sending mechanism is set and retained, to electrically connect such contact pieces and when said mechanism is raleased to disconnect said contact pieces, substantially as and for the purpose set forth. 7th. In a fire alarm system, the combination with the street boxes thereof hsving signal sending mechanism, of an electro-mechanical retaining and releasing device therefor, a normally open auxiliary circuit connecting said retaining and releasing mechanism with one or more sub-stations, a return signal device at each sub-station and consisting of an electro-magnet included in such circuit and knocker operated thereby to act upon the side of the sub-station box; a switch contained in each of said sub-stations and included in the auxiliary circuit, and the frame for carrying and the driving shaft of the means for operating such signal sending mechanism, such retaining and releasing device consisting of an electro-magnet, included in such auxiliary circuit and a spring operated lever, the latter adapted to normarly engage and retain such signal sending mechanism and the armature of such electro-magnet normally acting to hold such lever in the position required to such signal sending mechanism but adapted upon the closing of such auxiliary circuit and the energizing of said magnet to be moved and release such retaining lever; a bracket projecting from the frame in said street box and carrying a pair of separate contact pieces, constituting terminals of such auxiliary circuit, a contact arm carried by such driving shaft and adapted when such signal sending mechanism is set and retained, to electrically connect such contact pieces and when said mechanism is released to disconnect said contact pieces; and means consisting of a cam disc carried by said driving shaft for re-setting such spring operated retaining lever, substantially as and for the purpose set forth. 8th. In a fire alarm system, the combination with the street boxes thereof having signal sending mechanism, of a retaining and releasing device therefor consisting of a lever fulcrumed to the frame of such signal sending mechanism having the lower edge of one arm notched near its end to engage a pin projection upon one of the gear wheels of such signal sending mechanism, and the other arm of said lever adapted to be engaged by a cam disc carried by the driving shaft of such signal sending mechanism, the armature of an electro-magnet carried by such frame and adapted to normally bear upon such lever and cause the notch thereof to engage such pin projection, a sliding bar supported at one end by said frame, a bell crank lever fulcrumed to said frame and having one arm pivotally connected to the free end of said sliding bar, a sleeve carried loosely upon said driving shaft, a finger projection from said sleeve, and a notched disc mounted rigidly upon said sleeve and the notch of which receives the free end of said bell crank lever, a spring secured at one end to said frame and having its free end adapted to bear upon the end of the sliding bar that is pivotally connected to the bell crank lever, a pin projection upon said sliding bar located in close proximity to said armature and means, such as the pull-down lever of the street box and a pin carried thereby for engaging the finger projecting from said sleeve, substantially as and for the purpose set forth. 9th. In a fire alarm system, the signal sending mechanism, the means for operating same and a retaining and releasing device therefor, all enclosed within a single box or casing as described. 10th. In a fire alarm system, the signal sending mechanism, the means for operating same and a retaining and releasing device therefor, all enclosed within a circular box having one end closed and the other open, the edges of such open end being recessed to provide a shoulder and a transparent cover secured thereon, as set forth.

No. 53,795. Treatment of Manure and in Preservatives and Disinfectants for Manure.
(*Traitement, preservatif et désinfectant d'engrais.*)

Lebercht Tralls, Teplitz, Austria, 16th October, 1896; 6 years. (Filed 23rd March, 1896.)

Claim.—1st. An improved manure preservative and disinfectant consisting of ashes of burnt materials of all kinds, and sulphuric acid, forming a diffusible powder which remains dry in the air (sulphate ashes), the bases contained in the ashes being saturated with sulphuric acid diluted or undiluted, and this mixture afterwards dried, the insoluble residues serving as means for drying and keeping the mixture dry. 2nd. Sulphate ashes, formed substantially as set forth, as a powder capable of being diffused directly as a manure on account of plant foods contained in the ashes and fixed by means of sulphuric acid and of sulphuric acid combined with alumina and iron oxide, which in combination with the resulting sulphate of lime has the property of fixing the ammonia in the ground, replacing the humus, furnishing the wanting sulphuric acids and loosening clayey ground. 3rd. The use of sulphate ashes formed substantially as set forth as a diffusible powder in stable manure, human excrement, and places where vegetable and animal substances are placed to decay, with the object of fixing the ammonia, preserving the manure, and disinfecting it. 4th. The improvement in the treatment of manure, consisting in mixing therewith a powder prepared from ashes of burnt materials and sulphuric acid, substantialy as hereinbefore described, in order to allow of the manure being dried in the manner set forth. 5th. A compound for use as a very effective diffusible ammoniacal manure, containing other plant foods, obtained by treating stable manure, liquid manure, human excrement, and decayed vegetable and animal substances, with sulphate ashes, and drying, substantially as set forth.

No. 53,796. Fire Extinguisher. (*Extincteur d'incendie.*)



Mancelia Eugene Ogden, Newark, New Jersey, U.S.A., 16th October, 1896; 6 years. (Filed 27th July, 1896.)

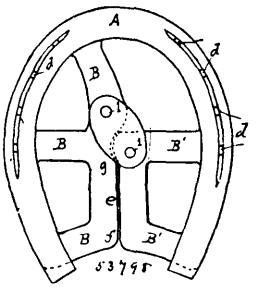
Claim.—1st. The combination, in a fire extinguisher, of a vessel as A, a frame supported therein, an acid receiver supported in said frame, a vertically movable rod provided at its lower end with a stopper or valve convex on its lower surface and adapted to close the mouth of the acid receiver and hold the latter in position in the frame, and means for operating the rod, substantially as shown and described. 2nd. In a fire extinguisher, the combination of a vessel as A, a frame suspended therein having a concaved bottom cross piece or plate adapted to receive and support the acid receiver, having a convex bottom, a vertically movable rod provided at its lower end with a stopper or valve convex on its lower surface and adapted to close the mouth of the acid receiver, said rod passing through the top of said vessel and provided with a screw-thread adapted to engage a similar screw-thread in said top or cover, and means for holding the rod depressed independent of its screw-thread connection with the cap, substantially as shown and described. 3rd. In a fire extinguisher, the combination of a vessel, as A, a frame supported therein, having a bottom piece adapted to support the acid receiver, an acid receiver supported thereon provided with a neck or nozzle, a rod passing through the top of the vessel and extending down through said frame and provided at its lower end with a valve convex on its lower surface adapted to close the mouth or discharge nozzle of said acid receiver, inwardly projecting lugs or shoulders which extend over the enlarged portion of said acid receiver formed by the contracted neck or nozzle thereof, and means for operating ths rod to remove the valve or stopper and release the acid receiver, substantially as described. 4th. The combination in a fire extinguisher, of a vessel, as A, a frame as C, supported therein by means of an annular rim at the top thereof, said frame being adapted at its bottom to receive and hold an acid receiver, a vertically movable rod extending through the top plate or cover of the vessel downwardly and provided at its lower end with a convex valve adapted to close the mouth or nozzle of the acid receiver, and a conical rubber, support or guide, the base of which is directed upward and secured to an annular flange at the top of the frame and the apex of which is directed downward and provided with an opening through which passes the vertically movable rod and to which it is secured, said rubber support and guide being adapted to close the top of the vessel and also to hold the rod in a depressed position, substantially as shown and described. 5th. In a fire extinguisher, the combination of a vessel as A, a frame supported therein, provided with a bottom adapted to support an acid receiver, said frame being also provided with a cross bar and the inwardly extending lugs or shoulders which project over the body portion of the acid receiver, a vertically movable rod provided at its lower end with a valve convex on its lower surface, passing upward through said bar or guide and through the top plate of the vessel and provided with a thumb nut, and a conical hollow rubber comb, the base of which is directed upward and secured to the annular rim at the top of the frame, and the apex of which is directed downward and provided with an opening through which passes the vertically movable rod, to which said apex is firmly secured, substantially as shown and described. 6th. The combination, in a fire extinguisher, of a vessel having a discharge nozzle provided with a rubber cap or covering of a frame supported therein by means of an annular rim at the top thereof, an acid receiver supported within said frame at the bottom thereof, a vertically movable rod provided with a valve at its lower end for closing the acid receiver, and means for operating said rod and discharging the contents of the receiver into the vessel, substantially as shown and described.

No. 53,797. Process for the Treatment of Lime, etc.
(*Procédé pour le traitement de la chaux, etc.*)

Harry H. Pierce, Toledo, Ohio, U.S.A., 16th October, 1896; 6 years. (Filed 23rd July, 1896.)

Claim.—1st. The herein described process of treating lime, which consists in, first, slaking quicklime to a putty; second, roasting said putty, and, third, grinding the hard mass thus obtained, substantially as and for the purpose specified. 2nd. As an article of manufacture, lime which as quicklime has been slaked to a putty, then roasted and then ground, which will not slake, heat nor swell, substantially as and for the purpose specified.

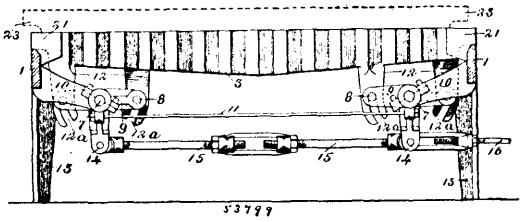
No. 53,798. Expanding Horse-Shoe Plates.
(*Expansion de plaques de fer à cheval.*)



Joseph Naipolder LeVasseur dit Belisle, Manchester, New Hampshire, U.S.A., 16th October, 1896; 6 years. (Filed 16th September, 1896.)

Claim.—1st. The improved hoof pad, the same consisting of the opposite halves connected by the integral rim, said halves being separated at about the centre of the pad from the heel to a point in the rear of the front portion of the rim, the edges of said halves interlocking in rear of said point so as to resist longitudinal strain, substantially as specified. 2nd. The herein-described improved pad for hoofs, the same consisting of the opposite sections B and B¹, having the curved interlocking edges *g* and separated on the line *e* from the rear central portion of the pad to a point near the toe, the shoe-shaped integral rim D, and the swivel-plate C riveted to the opposite sections B and B¹, substantially as specified.

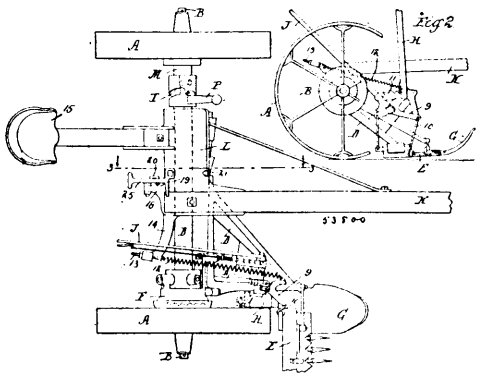
No. 53,799. Furnace Grate. (*Grille de fournaise.*)



Salyer Reed Earle, Toronto, Ontario, Canada, 16th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. In a grate-bar formed zig-zag in horizontal section, and wedge-shape in cross-section and having vent-holes midway in cross-section equally spaced and extending throughout the entire length of the grate-bar, substantially as shown and for the purpose hereinbefore set forth. 2nd. In a grate-bar formed zig-zag in horizontal section, and wedge-shape in cross-section, and having dependent slotted arms extending downwardly, said slot in the form of an arc for straddling each alternative oscillating bar, substantially as shown and described. 3rd. In a furnace grate, the end frames supporting the stationary grate-bars which form the side frames, and the said end frames having cast thereon fingers or partition walls, which interspace the grate-bars, substantially as shown and described. 4th. In a furnace grate, the rock-shafts having fastened thereon rocking beams supporting the oscillating shafts, and one of each pair of rocking-beams having a dependent arm and the adjustable rod connecting the same, substantially as shown and described. 5th. In a furnace grate, the end frame supporting a centre bearing-bracket and braced by a tension rod, 11, in combination with the stationary grate-bars, forming sides, frames having dependent brackets in which the rock-shafts are journalled, substantially as described. 6th. In a furnace grate, the combination of a grate-bar formed zig-zag in horizontal section and wedge-shape in cross-section, and having vent-holes midway in cross-section equally spaced and extending throughout the entire length with the dependent slotted arm extending downwardly, said slot in the form of an arc, substantially as shown and described.

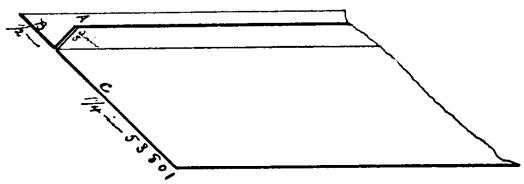
No. 53,800. Mower. (*Faucheuse.*)



Maurice Kane, Austin, Illinois, U.S.A., 16th October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. In a mower, a supporting axle, a main frame mounted thereon, gearing, means for shifting said main frame to engage and disengage said gearing, and means for constantly lubricating the bearing surface of said shifting means, as and for the purpose set forth. 2nd. In a mower, a main frame, a cutter, gearing for actuating said cutter, and means for shifting said frame to engage and disengage said gearing, comprising a sleeve, said sleeve provided with a flange arranged to engage a groove on a fixed part, whereby said sleeve is held against other than rotary movement, the flange on said sleeve arranged to form a receptacle adapted to receive and hold a lubricant, whereby the bearing faces of said flanges are constantly lubricated during the operation of the machine, as and for the purpose set forth. 3rd. In a mower, traction wheels, a supporting axle therefor, a cutter bar, a main frame supporting the same, said main frame mounted on said axle, gearing for actuating the cutter, means for shifting said main frame upon said axle to engage or disengage said gearing, comprising a cam sleeve, an arm carried by said main frame and adapted to engage said cam sleeve, said cam sleeve provided with a flange arranged to surround the upper part of said axle, thereby forming a cup or receptacle adapted to receive and contain a lubricant, means for rocking said sleeve, and means for preventing movement of said sleeve longitudinally of said shaft, as and for the purpose set forth. 4th. In a mower, traction wheels, a supporting axle, a cutter bar, a main frame mounted on said axle for supporting said cutter bar, gearing for actuating the cutter, a sleeve for coupling the traction wheel to safd axle, said sleeve mounted rigidly on said axle and provided with a peripheral groove and flange, a cam hub mounted on said sleeve and provided with a groove and flange to receive the flange and groove respectively of said sleeve whereby said cam hub is held against longitudinal movement on said axle, but is permitted a rotary movement, said cam hub flange arranged to encircle and enclose the under side or portion of said axle, thereby forming a receptacle adapted to receive and hold a lubricant, and connections between said main frame and cam for shifting said main frame to engage and disengage said gearing, as and for the purpose set foth. 5th. In a mower, traction wheels, an axle, a main frame supported on said axle and carrying a cutter bar and actuating gearing for the cutter, a ratchet sleeve rigidly mounted on said axle and constituting means for coupling said traction wheel and axle, said sleeve provided with a peripheral groove and flange, a cam hub provided with a co-operating groove and flange arranged to encircle and enclose the under portion of said axle, thereby forming a receptacle adapted to receive and contain a lubricant, said cam hub groove and flange being cut away above the axle, a removable dust guard arranged to cover said cutaway portion, means for introducing a lubricant to said receptacle, and connections between said main frame and cam hub, whereby when said hub is rocked, said frame is shifted longitudinally with respect to said axle, as and for the purpose set forth. 6th. In a mower, traction wheels, a supporting axle therefor, a main frame carried by said supporting axle, a tongue plate mounted on said main frame, a cutter bar pivotally mounted at one end on said main frame, a lever for rocking said cutter bar about its pivot and an extension spring connected at one end to said lever and at the other end to said tongue plate and arranged to assist in yieldingly supporting said cutter bar and main frame, as and for the purpose set forth. 7th. In a mower, traction wheels, a supporting axle therefor. a main frame carried by said axle, a tongue plate mounted on said main frame, a cutter bar pivotally mounted at one end upon said main frame, a triangular lever pivotally mounted on said main frame, having one arm thereof connected to the cutter bar, an operating lever connected to another arm of said triangular lever, and a tension spring connected at one end to the third arm of said triangular lever, and at the other end adjustably connected to a fixed part of the tongue plate, as and for the purpose set forth. 8th. In a mower, traction wheels, a supporting axle therefor, a main frame sleeved to rock upon said axle and carrying the cutter bar and its operating mechanism, a tongue-supporting plate supported upon said main frame at a point rearwardly of said axle, a lever pivotally mounted on said tongue plate rearwardly of its point of support, and connections between said lever and main frame, said connections being arranged rearwardly of said axle, as and for the purprse set forth. 9th. In a mower, traction wheels, a supporting axle therefor, a main frame sleeved to rock upon said axle, a cutter bar and its operating mechanism mounted on said main frame, a tongue plate supported on said main frame, a lever mounted on the rear end of said tongue plate, said main frame provided with an extension arranged to project rearwardly from the axis about which said main frame rocks, and connections between said lever and extension, whereby when said lever is actuated, said main frame is rocked about said axle, as and for the purpose set forth. 10th. In a mower, traction wheels, an axle, a main frame pivotally supported on said axle, a cutter bar and actuating gearing therefor mounsed on said main frame, a tongue plate pivotally mounted on said main frame at a point rearwardly of the axis upon which said main frame pivots, a lever pivotally mounted on said tongue plate rearwardly of its point of pivotal support, said main frame provided with a rearward extension, connections between said lever and extension, whereby when said lever is rocked said main frame is rocked about said axle, and a catch mounted on said tongue plate and arranged to engage said lever and maintain the same in position to hold said main frame in rocked position, as and for the purpose set forth. 11th. In a mower, a supporting axle, a main frame pivotally mounted thereon, a tongue plate mounted on said main frame, a lever mounted on said tongue plate and provided with an extension beyond its point of pivotal support, and connections between said lever and main frame, as and for the purpose set forth.

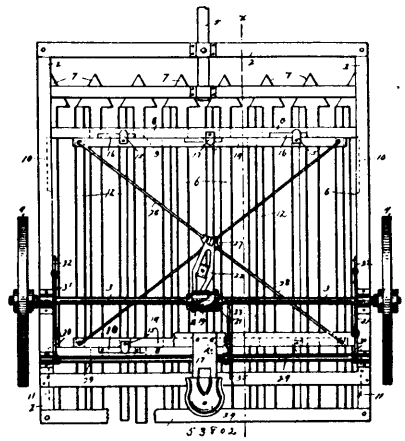
No. 53,801. Metal Weather Strip.
(*Bourrelet de porte metallique.*)



Jeptha Harvey Sutton, Windsor, Ontario, Canada, 16th October, 1896; 12 years. (Filed 10th July, 1896.)

Claim.—A metal weather strip of zinc or similar sheet metal, of any required length and width, having a tongue A, which enters a groove cut in the window sash on any one or more of its sides, substantially as and for the purpose hereinbefore set forth.

No. 53,802. Weed-puller. (*Sarcleur.*)



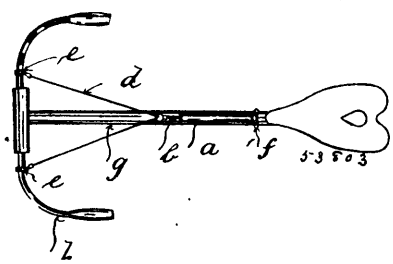
Charles Waterman, Bozeman, Montana, U.S.A., 16th October, 1896; 6 years. (Filed 2nd September, 1896.)

Claim.—1st. In a weed-puller, the combination with the main frame mounted upon wheels, of a rigid slat frame pivotally mounted upon said main frame, the slats thereof being slightly separated and provided with spear-pointed front ends, of a movable slat frame, the slats of which fit the spaces between the slats in the rigid frame and the forward ends of which fit just back of the spear-heads of said rigid slats, and means for shifting said movable slat frame alternately in opposite directions, substantially as and for the purpose described. 2nd. In a weed-puller, the combination of the main frame, a shaft mounted in bearings in said main frame, wheels rigidly secured to the outer ends of said shaft, a drum secured to said shaft having a cam-groove therein, a bracket loosely mounted on said shaft, a lever fulcrumed in said bracket, one arm of which has a projecting roller thereon which fits a cam-groove in said drum,

a rigid slat frame pivotally connected to said main frame, the slats thereof being slightly separated and formed with spear-shaped forward ends, cross-beams connecting said slats, a movable slat frame made up of a series of slats connected by suitable cross-beams and fitting spaces between the slats of said rigid frame, an upright rotatably mounted on the centre of said movable slats, pitmen connecting the corners of said movable frame with said upright and a loose connection between the forward end of said lever and said upright, substantially as and for the purpose specified. 3rd. In a weed-puller, the combination of the main frame, a shaft mounted in bearings in said main frame, wheels rigidly secured to the outer ends of said shaft, a drum secured to said shaft and having a cam-groove therein, a bracket loosely mounted on said shaft, a lever fulcrumed in said bracket, one arc of which has a projecting roller thereon which fits a cam-groove in said drum, a rigid slat frame made up of a series of spear-pointed slats slightly separated from one another and cross-beams connecting said slats through a series of blocks or castings, guide-lugs secured to the upper surface of the cross-beams connecting said rigid and movable slat frames, projecting over the top of the adjacent cross-beams, an upright rotatably mounted in the centre of said movable slats, pitmen connecting the corners of said movable slat frame with said upright and a loose connection between the forward end of said lever and said upright, substantially as and for the purpose described. 4th. In a weed-puller, the combination of the main frame, a shaft mounted in bearings in said main frame, wheels rigidly secured to the outer ends of said shaft, a drum secured to said shaft and having a cam-groove therein, a bracket loosely mounted on said shaft, a lever fulcrumed in said bracket, one arm of which has a projecting roller thereon which fits the cam-groove in said drum, a rigid slat-frame made up of a series of spear-pointed slats slightly separated from one another and cross-beams connecting said slats through a series of blocks or castings, a movable slat-frame made up of a series of slats fitting the spaces between the slats of said rigid frame and cross-beams connected thereto through blocks or castings, guide-lugs secured to the upper surface of the cross-beams connecting said rigid and movable slat-frames, projecting over the top of the adjacent cross-beams, an upright rotatably mounted in the centre of said movable slats, pitmen connecting the corner of said movable slat-frame with said upright and a loose connection between the forward end of said lever and said upright, a shaft mounted in bearings in said main frame, having an operating-lever thereon which acts in engagement with a sector on a stationary part of said frame, arms on the outer end of said shaft, bell-crank levers fulcrumed in said main frame and connected to said slat-frame, and pitmen connecting the forward ends of said arms and the upper ends of said bell-crank levers, substantially as and for the purpose described.

No. 53,803. Steering Gear for Velocipedes.

(*Appareil pour gouverner les velocipèdes.*)

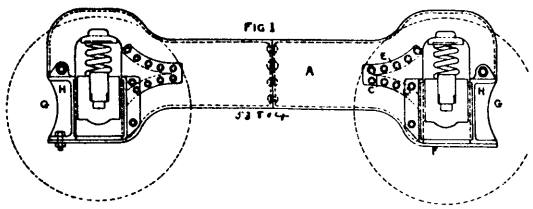


Thomas Henry Simmonds, London, England, 16th October, 1896; 6 years. (Filed 29th August, 1896.)

Claim.—In steering gear for bicycles, in combination, two cords secured to the handle bar, one on each side of the axis of same, by means of clips, a regulating spring carried in a cylinder or casing, a piston or rod in said cylinder or casing acted upon by the said spring and connected to said cords, a pivot or swivel joints for attaching said casing to the frame of the machine.

No. 53,804. Railway Car Truck.

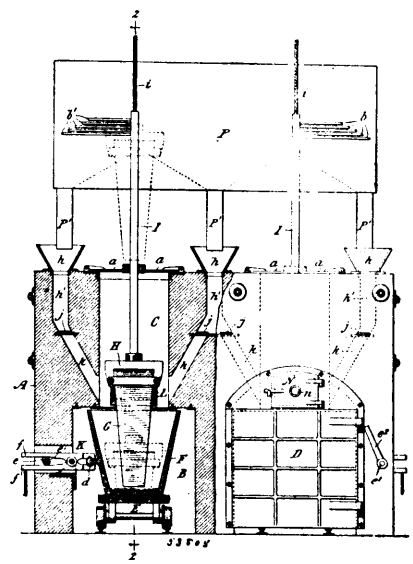
(*Châssis de chars de chemin de fer.*)



George Robert Joughins, Berkley, Virginia, U.S.A., 16th October, 1896; 6 years. (Filed 2nd September, 1896.)

Claim.—1st. The metal truck frame for railway cars, constructed by bending two beams so that each beam shall form two half-side frames and one transom, substantially as described. 2nd. In a metal beam side frame, a spring pocket formed within a pedestal having an opening at the side by prolonging above the journal box the said pedestal for a sufficient space to accommodate a spring, substantially as described. 3rd. In a pedestal formed at the end of a metal beam side frame and having an opening at the side, and in which the journal box has a vertical movement, a removable piece of metal to fill up said opening and provided with a rubbing face on one side for the journal box to rub against, substantially as described. 4th. A truck frame, consisting of two U-shaped metal beams joined together substantially as described, and the ends of the said beams adapted to receive and support journal boxes, as herein set forth. 5th. In a metal truck frame for railway cars, the side frames of which are formed from beams, the jaw or pedestal constructed by cutting to shape, splitting and opening out the end of the side frame, with an attached piece of metal to restore the strength of the beam, substantially as described. 6th. In a metal truck frame for railway cars, the transoms of which are formed from beams attached together, the transoms bent at their centres outwardly from each other for the reception of a centre pin, substantially as described. 7th. A truck frame made up of metal beams, the ends of the said beams fashioned to form pedestals with spring pockets and end openings, and removable pieces adapted to close the end openings, substantially as described. 8th. A pedestal provided with a spring pocket above the journal box, and having an opening at its side closed by a removable piece of metal in combination with a flanged metal side frame, substantially as described. 9th. A pedestal permanently closed at the bottom and open at the side and having a removable piece of metal adapted to close said opening in combination with a journal box having vertical movement therein, substantially as described. 10th. The combination of the side frame formed of flanged metal beams, the pedestal having an opening at the side, and a journal box moving vertically in said pedestal, substantially as described. 11th. The combination of the side frame formed of flanged metal, the pedestal having an opening at the side, the journal box moving vertically in said pedestal, and a removable piece of metal having a rubbing face on one side for the journal box to rub against, substantially as described.

No. 53,805. Electric Furnace. (*Fournaise électrique.*)



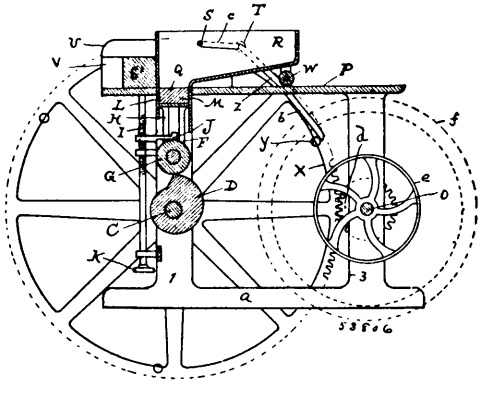
Thomas Leopold Willson, New York, State of New York, U.S.A., 1896; 6 years. (Filed 13th August, 1896.)

Claim.—1st. An electric furnace comprising a furnace chamber, containing a crucible or hearth connected to one terminal of the electric circuit, a carbon pencil connected to the other terminal thereof and movable up and down, and a chamber forming an upward extension of said furnace chamber, adapted to wholly enclose said pencil in its normal movements, and enable it to be lifted out of the furnace chamber. 2nd. In an electric furnace, the combination of a furnace chamber, an upright carbon pencil movable up and down, a carbon holding rod carrying said pencil, and an upright chamber above said furnace chamber adapted to wholly enclose said pencil in its normal movements, having a top opening adapted to admit the passage of the pencil, and a removable cover for said opening having a hole through which said rod passes. 3rd. In an electric furnace, the combination of a furnace chamber, an upright carbon pencil movable up and down, an upright chamber above said furnace chamber, adapted to wholly enclose said pencil in its normal movements, a carbon-holding rod carrying said pencil, movable freely through an opening in the top of said chamber, and an outlet flue for the escape of gases from said chambers. 4th. In an electric furnace, the combination of a furnace chamber, an upright carbon pencil movable up and down, with its adjusting means, an upright chamber above said furnace chamber, adapted to wholly

enclose said pencil in its normal movements, and an outlet flue from said upright chamber for the escape of gases. 5th. In an electric furnace, the combination of a furnace chamber extended upwardly to form an upright pencil chamber, a flue leading from the upper part of the latter, a hearth or crucible in said furnace chamber, a carbon pencil with its holder movable in said pencil chamber, and its rod passing out through the top thereof, whereby air drawn into said furnace chamber is caused to ascend through said pencil chamber to said flue, and thereby cools the pencil and holder. 6th. The combination in an electric furnace of a furnace chamber having a hearth, an upright movable carbon pencil, an outlet flue leading from the furnace, a settling chamber to which said flue leads, of large capac ty and formed at its bottom with dead compartments for receiving the precipitated powder, and a chimney connected to draw from the undivided upper part of said settling chamber. 7th. The combination in an electric furnace of a furnace chamber having a hearth, an upright movable carbon pencil, an upright chamber adapted to wholly enclose said pencil in its movements, and a feeding flue discharging into said furnace chamber, whereby material dumped through said flue falls into the furnace chamber. 8th. The combination in an electric furnace of a furnace chamber having a hearth, an upright movable carbon pencil, an upright chamber adapted to wholly enclose said pencil in its movements, and feeding flues discharging into the lower part of said upright chamber on opposite sides thereof, whereby material dumped through said flues falls into the furnace chamber on opposite sides of the carbon pencil, and an outlet flue leading from the furnace. 9th. In an electric furnace, the combination of an upright carbon pencil hung from a carbon holder on an upright rod, movable up and down, a crucible mounted on a car movable into and out of the furnace, means for making electric circuit connections with said crucible and said pencil, a bench forming an upright chamber enclosing said pencil and with a chamber beneath it adapted to receive said crucible and car, the upright chamber being high enough to permit the pencil to be lifted into it quite clear of said crucible to admit of the removal of the crucible. 10th. In an electric furnace, the combination with the stationary bench thereof of the movable crucible having an exterior projecting flange, and an electric contact device consisting of a clamp K mounted on said bench and having arms or tongs pivoted together, with gripping heads at one end to engage said flange, and means for acting on said arms to cause the clamp to grip the flange. 11th. The combination with an electric furnace of a flue leading therefrom, a suction fan, and a flue leading from near said furnace flue to said fan adapted to draw gases and dust from the furnace flue together with exterior air. 12th. The combination with an electric furnace, of a draft flue leading from its chamber, a suction fan communicating with said flue, and a dust separator receiving the air from said fan and adapted to separate from it the dust or powder drawn from the furnace. 13th. The combination with an electric furnace, of a fixed flue L leading therefrom, and a branch flue L^1 leading to a main flue L^2 which leads to the suction fan, said branch flue including a movable tube *t* adjustable toward or from the fixed flue L to regulate the draft from the furnace.

No. 53,806. Brick-making Machine.

(*Machine à faire la brique*).

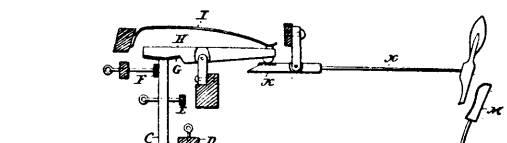


Frank Gutteridge, Seaforth, Ontario, Canada, 16th October, 1896; 6 years. (Filed 8th July, 1897.)

Claim.--1st. A brick making machine comprised of a suitable frame-work, a table for the framework, an opening through the table, a hopper travelling on the said table, the mouth of the hopper arranged to cover the opening through the table, a series of moulds supported by the framework below the said opening, a plunger located below the said moulds, a series of dies carried by the said plunger, and means for raising and lowering the plunger to press the material within the moulds into bricks, substantially as specified. 2nd. A brick-making machine comprised of a suitable framework, a table for the frame-work, an opening through the table, a hopper travelling on the said table, the mouth of the hopper arranged to cover the opening through the table, a series of moulds supported by the framework below the said opening, a plunger located below the said moulds, a series of dies carried by the said plunger, means for raising and lowering the plunger to press the material within the moulds into bricks, and a cross-bar adapted to be moved into position above the said opening through the table to resist the pressure of the plunger, substantially as specified. 3rd. A brick-making machine comprised of a suitable framework, a table for the framework, an opening through the table, a hopper travelling on the said table, the mouth of the hopper arranged to cover the opening through the table, a series of moulds supported by the framework below the said opening, a plunger located below the said moulds, a series of dies carried by the said plunger, means for raising and lowering the plunger to press the material within the moulds into bricks, and a cross-bar adapted to be moved into position above the said opening through the table to resist the pressure of the plunger, substantially as specified. 4th. A brick-making machine comprised of a suitable framework, a table for the framework, an opening through the table, a hopper travelling on the said table, the mouth of the hopper arranged to cover the opening through the table, a series of moulds supported by the framework below the said opening, a plunger located below the said moulds, a series of dies carried by the said plunger, a cross shaft journalled in the framework, a cam mounted on the cross shaft adapted to raise and lower the said plunger, and a cross-bar adapted to be moved into position above the said opening through the table to resist the pressure of the plunger, substantially as specified. 5th. A brick-making machine comprised of a suitable framework, a table for the framework, an opening through the table, a hopper travelling on the said table, the mouth of the hopper arranged to cover the opening through the table, a series of moulds supported by the framework below the said opening, a plunger located below the said moulds, a series of dies carried by the said plunger, a cross shaft journalled in the framework, a cam mounted on the cross shaft adapted to raise and lower the said plunger, and a spur wheel mounted on the cross shaft meshing with a spur wheel driven from the driving shaft, substantially as specified. 6th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected to the side face of the wheel, adapted to alternately engage with the projection and lever, to respectively move the mouth of the hopper away from the opening through the table, and to move it back again into position, substantially as specified. 7th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected by a link to the hopper, a cross shaft, a wheel mounted on the cross shaft, a series of pins connected to the side face of the wheel, adapted to alternately engage with the projection and lever, to respectively move the mouth of the hopper away from the opening, through the table, and to move it back again into position, and a cross bar connected to the hopper to temporarily close the opening through the table, substantially as specified. 8th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected by a link to the hopper, a cross shaft, a series of pins connected to the side face of the wheel, adapted to alternately engage with the projection and lever, to respectively move the mouth of the hopper away from the opening through the table, and to move it back again into position, a cam mounted on the cross shaft, a plunger sliding in suitable guides formed in the upright part of the framework, a roller carried by the lower end of the plunger, adapted to travel on the said cam, a series of dies carried by the upper end of the plunger, and moulds carried by the framework located below the said opening through the table, substantially as specified. 9th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected by a link to the hopper, a cross shaft, a series of pins connected to the side face of the wheel, adapted to alternately engage with the projection and lever, to respectively move the mouth of the hopper away from the opening through the table, and to move it back again into position, a cross bar connected to the hopper to temporarily close the opening through the table, a cam mounted on the cross shaft, a plunger sliding in suitable guides formed in the upright part of the framework, a roller carried by the lower end of the plunger, adapted to travel on the said cam, a series of dies carried by the upper end of the plunger, and moulds carried by the framework located below the said opening through the table, substantially as specified. 10th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected by a link to the hopper, a cross shaft, a wheel mounted on the cross shaft, a series of pins connected to the side face of the wheel, adapted to alternately engage the projection and lever, to respectively move the mouth of the hopper away from

the opening through the table, and to move it back again into position, a cross bar connected to the hopper to temporarily close the opening through the table, a cam mounted on the cross shaft, a plunger sliding in suitable guides formed in the upright part of the framework, a roller carried by the lower end of the plunger, adapted to travel on the said cam, a series of dies carried by the upper end of the plunger, moulds carried by the framework located below the said opening through the table, and an adjustable lever to limit the fall of the plunger, substantially as specified. 11th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected by a link to the hopper, a cross shaft, a spur wheel mounted on the cross shaft, a series of pins connected to the side face of the spur wheel, adapted to alternately engage the projection and lever, to respectively move the mouth of the hopper away from the opening through the table, and to move it back again into position, a cross bar connected to the hopper to temporarily close the opening through the table, a cam mounted on the cross shaft, a plunger sliding in suitable guides formed in the upright part of the framework, a roller carried by the lower end of the plunger, adapted to travel on the said cam, a series of dies carried by the upper end of the plunger, moulds carried by the framework located below the said opening through the table, a driving shaft journalled in the framework, a spur wheel mounted on the driving shaft, meshing with the spur wheel on the cross shaft, a pulley mounted on the driving shaft to impart motion and power to the said driving shaft, and a balance wheel mounted on the driving shaft to develop a centrifugal force, substantially as specified. 12th. In a brick-making machine the combination of a suitable framework, a table for the framework, an opening through the table, a hopper mounted on the table, a projection connected to the side face of the hopper, a lever pivoted to the table, the upper end of the lever connected by a link to the hopper, a cross shaft, a wheel mounted on the cross shaft, a series of pins connected to the side face of the wheel, adapted to alternately engage with the projection and lever, to respectively move the mouth of the hopper away from the opening through the table and to move it back again into position, a cross bar connected to the hopper to temporarily close the opening through the table, a cam mounted on the cross shaft, a plunger sliding in suitable guides formed in the upright part of the framework, a roller carried by the lower end of the plunger, adapted to travel on the said cam, a series of dies carried by the upper end of the plunger, moulds carried by the framework located below the said opening through the table, an adjustable lever to limit the fall of the plunger, a driving shaft journalled in the framework, a spur wheel mounted on the driving shaft meshing with the spur wheel on the cross shaft, a pulley mounted on the driving shaft to impart motion and power to the said driving shaft, and a balance wheel mounted on the driving shaft to develop a centrifugal force, substantially as specified. 13th. A brick-making machine comprised of a suitable framework, a table for the framework, an opening through the table, a hopper movable on the top of the table, the mouth of the hopper arranged to temporarily cover the opening through the table, a cross bar carried by the hopper, a series of moulds vertically movable in the framework below the said opening, means for applying pressure to the said moulds, a cross shaft, cams mounted on the cross shaft, connecting rods mounted on the said cams and connected to the cross bar to apply pressure to the cross bars to resist the pressure of the said moulds, substantially as specified.

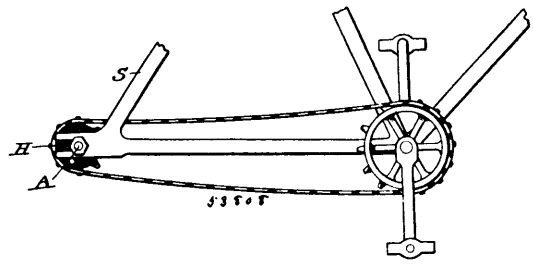
No. 53,807. Piano Action. (*Action de piano.*)



Morris Steinert, New Haven, Connecticut, U.S.A., 16th October, 1896; 6 years. (Filed 4th September, 1896.)

Claim.—1st. In a piano action, the combination of the pivoted hammer K, the pivoted lever H provided with the obtuse angled escapement G, and the jack C arranged to be tripped so that its upper end moves over the angle G when the key is depressed, all substantially as and for the purpose described. 2nd. In a piano action, the combination of the pivoted hammer K, the pivoted lever H provided with the obtuse angled escapement G, the jack C arranged to be tripped so that its upper end moves over the angle G and toward the centre of motion of the lever H when the key is depressed, and the regulating screws E and F, all substantially as and for the purpose described.

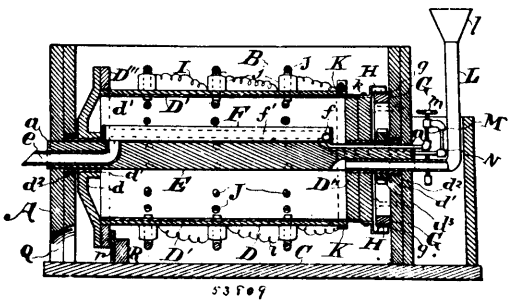
No. 53,808. Brake Mechanism for Bicycles, etc.
(*Mécanisme de frein pour bicycles, etc.*)



Perry Ernest Doolittle, Toronto, Ontario, Canada, 16th October, 1896; 18 years. (Filed 12th May, 1896.)

Claim.—1st. In a bicycle or other vehicle in combination with the driving wheel and driving mechanism, a friction disc mounted on the axis of said wheel, a second disc mounted on a support adjacent to said friction disc and connected with the driving mechanism, said second disc adapted to be forced against the friction disc to retard the forward movement of the vehicle, and a suitable lock to normally prevent the engagement of said discs and to lock them when so engaged, substantially as described. 2nd. In a bicycle or similar vehicle, in combination with the driving wheel and driving mechanism, a disc to which the driving mechanism is applied mounted on the hub of said driving wheel and having a lateral movement thereon, a clutch also mounted on said hub and engaging with said disc, and a removable disc on the axle of said driving wheel and secured against rotation thereon, said removable disc provided with an inner frictional surface and an annular rim enclosing the peripheral edge of said first disc, substantially as and for the purpose described. 3rd. In combination with the driving mechanism, a brake mechanism consisting of a sprocket wheel having a limited rotary and lateral movement on its support, a collar rigidly mounted on said support, said sprocket and collar provided with inclined projecting sections on their adjacent faces, a friction plate adjacent to said sprocket, a spring arm secured to said collar, a pin projecting from said sprocket with which said spring engages, said driving mechanism connected with said sprocket, substantially as and for the purpose described. 4th. In a bicycle or other similar vehicle, in combination with the driving mechanism, a friction disc, a support for said disc, said driving mechanism provided with actuating mechanism to force it into engagement with said friction disc on the reverse movement of the driving mechanism, and a spring lock on said vehicle adapted to normally prevent the engagement of said disc and driving mechanism and to lock them when so engaged, substantially as described.

No. 53,809. Electrical Gold Mining Machine.
(*Machine electrique pour l'exploitation des mines d'or.*)

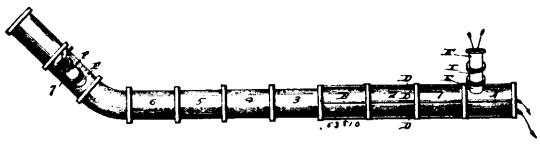


Reinhard Hoffmeister and Frederick Hoffmeister, both of Vancouver, British Columbia, Canada, 16th October, 1896; 6 years. (Filed 21st May, 1896.)

Claim.—1st. In a gold mining machine the combination of a rectangular casing or frame, a revolving drum arranged within and having its bearings fixed in the said drum with its ends resting within the outer walls of the casing, substantially as specified. 2nd. In a machine for mining gold, the combination of a casing, a revolving drum mounted therein, the said drum being closed at one end and open at the other, a fixed core passing through the drum and with its ends resting in the outer walls of the casing A, a rectangular-shaped pan securely fixed upon the core within the drum, a series of pipes having small apertures, arranged upon the said pan and an outlet from one end of the pan at a sharp declivity, and horizontally through the end of the core to the exterior of the machine, substantially as set forth. 3rd. In a gold mining machine, the combination of a casing with a revolving drum, a series of electric magnets fixed at regular intervals upon the periphery of the said drum, with their branches projecting through the crust thereof, and means for charging the magnets upon a section of the drum,

substantially as and for the purposes hereinbefore set forth. 4th. In a gold mining machine, the combination of a rectangular casing with a revolving drum mounted therein, a rigidly fixed core, having its end rounded and perforated, passing through the said drum, a pan F, arranged upon its upper side, a series of perforated pipes fixed to the said pan, and a water supply to the said pipes whereby constant jet streams are thrown against the projecting magnets within the said drum, substantially as and for the purposes specified. 5th. In a machine for mining gold, the combination of of a casing with a drum arranged therein, a score passing through the centre of the drum, sleeves securely fixed to either end of said drum, and made to encircle the rounded portions of the core F, with their projections arranged in suitable bearings in the inner walls of the casings A, a cog-gear wheel securely fixed to one of the sleeves and made to engage with a pinion wheel secured to a shaft P^1, substantially as and for the purposes set forth. 6th. In a machine for mining gold, the combination of a casing of rectangular form, with a revolving drum mounted therein, of means for passing gravel and water to the interior of the drum and intermixing with charged electric magnets therein, and of water pipes forcing water to a series of perforted pipes arranged upon a receptacle or pan, substantially as specified. 7th. In a gold mining machine the combination of a casing with a revolving drum arranged therein, of a projecting flange securely fixed to one of the inner walls of the casing A, a metal band secured upon the periphery of said flange, and electric carrying brushes secured at regular intervals to the adjacent end of the said drum, and made to engage the metal band on their passage round, substantially as and for the purpose set forth. 8th. In a machine for mining gold, the combination of a drum made to revolve in a rectangular shaped casing, a flange carrying a metal band and projecting from one of the inner walls of the casing A, a break or opening in the said band near its highest point, and a space or opening on its opposite periphery, by which the electric current is prevented from magnetizing the uppermost sets of magnets upon the drum, parallel to the space as connected on the said band, substantially as and for the purpose set forth. 9th. In a gold mining machine the combination of a rectangular formed casing with a revolving drum mounted therein, series of electric magnets arranged at regular intervals upon the periphery of the drum, with their branches projecting into the interior thereof, ot wires connecting each set or series of magnets to brushes secured to the closed end of the drum, the said brushes projecting and engaging a metallic band having a disconnected portion upon its upper periphery; a wire connecting the under and inner side of the band and means for passing an electric current thereto, substantially as specified. 10th. In a machine for mining gold, the combination of a rectangular casing with a revolving drum mounted therein, series of electric magnets fixed to the periphery of the said drum, with means for charging the same separately, a band K, fixed upon the end of the drum and wires *i*, connected therewith from the coils of the said magnets, a brush engaging the said band and a wire engaging therewith to convey the negative current back to the generator, as and for the purposes hereinbefore set forth.

No. 53,810. Culvert. (*Ponceau.*)



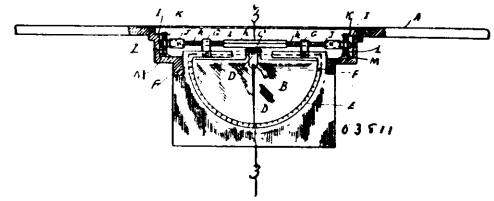
Benjamin P. Saunders, Dye, Missouri, U.S.A., 16th October, 1896; 6 years. (Filed 28th May, 1896.)

Claim.—1st. A culvert, composed of a number of flanged pipes fitting one within the other, tie rods extending through said pipes and nuts engaging the ends of said rods and clamping said pipes together, substantially as set forth. 2nd. A culvert, comprising a double-flanged pipe and a number of single-flanged pipes, the unflanged ends of all but one of which fit in the flanged ends of the others and the remaining one having its unflanged end fitting in one of the flanged ends of the double-flanged pipe, substantially as set forth. 3rd. A culvert, comprising a double-flanged pipe provided with a branch pipe or arm composed of any desirable number of sections and a number of single-flange pipes, the unflanged ends of all but one of which fit in the flanged ends of the others and the remaining one having its unflanged end fitting in one of the flanged ends of the double-flange pipe, substantially as set forth.

No. 53,811. Clinometrical Plumbs and Levels.
(*Niveau clinomètrique.*)

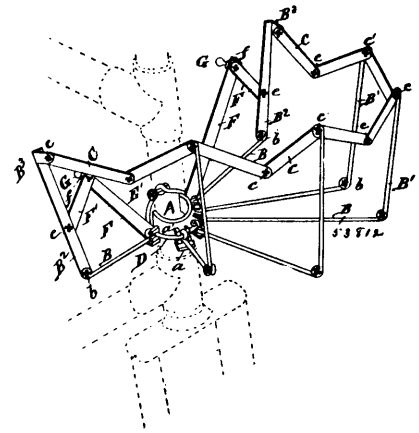
David W. Fish and John J. Joyce, both of Dolgeville, New York, U.S.A., 16th October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. In a plumb and level of the class described, the stock having the closed flat-sided semicircular flash secured therein in stationary position and filled or partially filled with liquid, the tight-fitting stopper which closes an aperture in the top of said flask, the indicator suspended at its upper end from said stopper within the said flask, the parallel dial plates, one upon each side of the said flask and cut away to expose the same, and means for adjusting the said dial plates, substantially as specified. 2nd. In a



plumb and level of the class described, the stock having the closed flask secured therein, the indicator suspended within the said flask, the apertured dial plates, the nuts to which said plates are secured, the rod or bolt engaging said nuts, the pivot blocks in which said rod or bolt is journalled, the nuts to which said pivot blocks are attached and means for securing the vertical adjustment of the said nuts, substantially as specified. 3rd. In a plumb and level of the class described, the combination with a dial plate, of nuts to which said plate is attached, a rod or bolt engaging the said nuts, pivot blocks in which said rod or bolt is journalled, nuts to which said pivot blocks are attached and screws engaging the said nuts, substantially as specified.

No. 53,812. Luggage Carrier. (*Porte-bagage.*)



Rochester Bicycle Combination Holder Company, 16th October, 1896; 6 years. (Filed 20th April, 1896.)

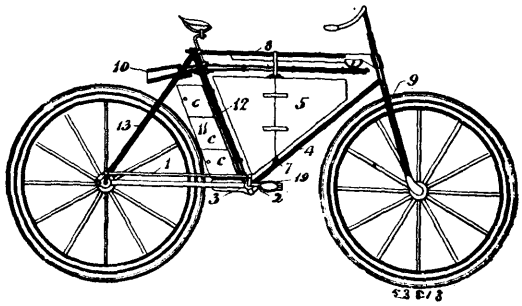
Claim.—In a luggage carrier, the combination with the support adapted to be secured to a cycle frame, of the pivoted arms B, the arms B^1 pivoted thereto and flexible connections between the latter, substantially as described. 2nd. In a luggage carrier, the combination with the support adapted to be secured to a cycle frame, of the pivoted arms B, the arms B^1 pivoted thereto and the links C pivoted to each other and to the arms B^1, substantially as described. 3rd. In a luggage carrier, the combination with the support adapted to be secured to a cycle frame, of the pivoted arms B, the arms B^1 pivoted thereto, the arms F and F^1 and the links C, substantially as described. 4th. In a luggage carrier, the combination with the support S, the band D for securing it to a cycle frame, the arms B pivoted on the band, the arms B^1 and flexible connections between the latter, substantially as described. 5th. In a luggage carrier, the combination with a support, of a series of radial supporting arms pivoted at one end to the support and occupying substantially the same plane when extended and arranged to fold in planes radially from the support and securing devices for attaching said support to a cycle frame, substantially as described.

No. 53,813. Military Bicycle. (*Bicycle militaire.*)

The U. S. Cycle Improvement Co., assignee of Almy Le Grand Peirce, both of Pittsburgh Pennsylvania, U.S.A., 16th October, 1896; 6 years. (Filed 12th September, 1896.)

Claim.—1st. In a velocipede for army use, the combination of the top tube of the frame acting both as a member of the frame and fashioned as a gun barrel. 2nd. In a velocipede for army use, the combination of a frame tube, acting both as a member of the frame and as a cartridge magazine, being provided with a cartridge delivery opening in the side; a removable sleeve normally closing said opening; a spring to expel the cartridges, and a stop at the top of the magazine. 3rd. In a velocipede for army use, the combination of a knapsack or baggage carrier opening at its side and swung beneath the top tube of the frame and a vertical pivot rod secured to the frame and passing through said knapsack on which the latter may be turned at any desired angle. 4th. In an army velocipede, a tube of the frame acting as a cartridge magazine. 5th. In an army velocipede, a knapsack or luggage carrier pivoted beneath the top tube of the frame so as to be swung vertically at any

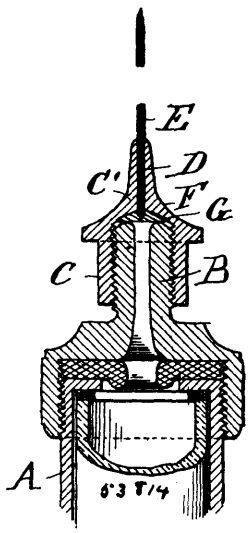
desired angle. 6th. In an army velocipede, a tube of the frame acting as a cartridge magazine and provided with a cartridge



delivery opening in the side of the tube normally closed by a removable sleeve. 7th. In an army velocipede, the tubes of which act as sheaths for a bayonet or dagger sword. 8th. A detachable haversack secured between the rear wheel and the back tubes of the diamond-shaped frame. 9th. The combination of a crank with an open frame, a pedal hinged at the base of said crank and adapted to be folded up inside of the crank frame. 10th. The combination of a stirrup-shaped crank, a pedal hinged at the base of said crank and adapted to be folded up inside said stirrup. 11th. The combination of an open crank adapted to receive the pedal when the latter is folded therein, a pedal hinged at the base of said crank, a co-acting spring on the stirrup and lugs on the pedal shaft whereby the pedal is locked when folded or extended. 12th. The combination of a stirrup-shaped crank provided with bearings at the lower end thereof, a T pedal shaft with journals on the T head adapted to engage with said bearings and a removable treadle step to fit on said shaft. 13th. The combination of a stirrup-shaped crank with cross bar at its base, a perforated lug on said cross bar, a spring attached to said cross bar and bearing a forked spur projecting through the perforated lug, a treadle shaft hinged in the base of said stirrup crank, projections separated by 90° on said treadle and adapted to lock alternately with said forked spur when the treadle is folded or lowered and said treadle. 14th. The combination of a crank with two side arms, bearings at the lower ends of said arms and recesses above said bearings, and a T pedal shaft provided with journals, to rest in said bearing and having lugs to prevent the lateral movement of the T shaft, which lugs are entered in the crank by means of the recesses above the bearings.

No. 53,814. Hypodermic Syringe.

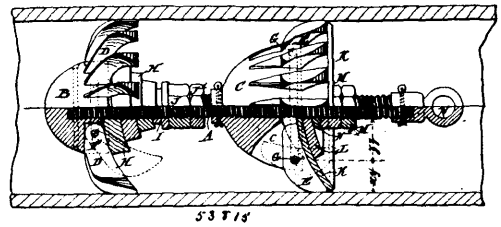
(*Seringue hypodermique.*)



Gustav R. Schimmel, Detroit, Michigan, U.S.A., 16th October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—In a hypodermic syringe, the combination with the cylinder of a nozzle B thereon having a reduced threaded section, a butt engaging over the reduced portion formed with a tapered outer end integral therewith, having a longitudinal bore and conical seat at the base of the bore of a diameter greater than the bore of the nozzle, and a needle member closely fitting the bore of the butt and having a conical soft-metal head fixedly secured on its lower end, seated in said conical seat and against the base of which the upper edge of the nozzle B engages, substantially as described.

No. 53,815. Appliance for Scraping the Interior of Water Pipes, etc. (*Appareil pour nettoyer l'intérieur des tuyaux à eau, etc.*)

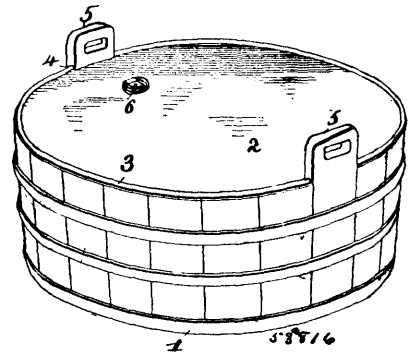


Henry John Inwood Bilton and Thomas Timmins, both of Malvern, Victoria, 17th October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. The herein described appliance for scraping the interior of water or other mains or pipes consisting of the various parts constructed, combined and arranged substantially as herein described and explained. 2nd. In an appliance of the kind herein described for scraping the interior of water or other mains or pipes, the combination of a series of radial pivoted cutters with one or more resilient washers or discs, together with an adjusting nut or nuts, in the manner and for the purposes substantially as herein described and explained. 3rd. In an appliance of the kind herein described for scraping the interior of water or other mains or pipes, the combination with a series of pivoted radial cutters, of a leather disc forced against said cutters by the pressure of water or other fluid in the pipe or main whereby said fluid is used to force the cutters outwards against the interior of said pipe or main in addition to its ordinary use as a propelling force, substantially as herein described and explained.

No. 53,816. Cover for Portable Wash Tub.

(*Couvercle pour cuves à laver portative.*)



Rachel Fee Maiden, Philadelphia, Pennsylvania, U.S.A., 17th October, 1896; 6 years. (Filed 22nd September, 1896.)

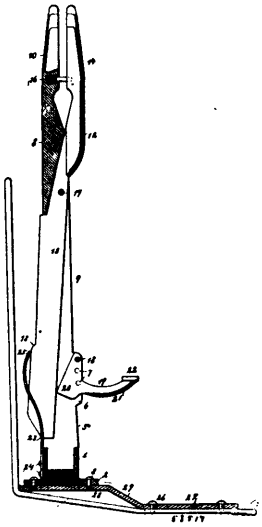
Claim.—1st. In combination with a portable wash tub, a cover having cut-away portions adapted to embrace the handles of said tub, as shown and described. 2nd. In combination with a portable wash tub, a cover made of sheet metal, having a strengthening peripherical bead, cut-away portions adapted to embrace the handles of said tub, and a handle for swinging said cover upon one of said cut-away portions, substantially as and for the purpose set forth. 3rd. As a new article of manufacture, a cover for a portable wash tub, formed of a single piece of sheet metal having a strengthening bead, and cut-away portions adapted to embrace the handles of a tub, and a ring for manipulating said cover, substantially as specified.

No. 53,817. Rein-Holder. (*Porte-reines.*)

William Beine, Overbrook, Kansas, U.S.A., 17th October, 1896; 6 years. (Filed 24th September, 1896.)

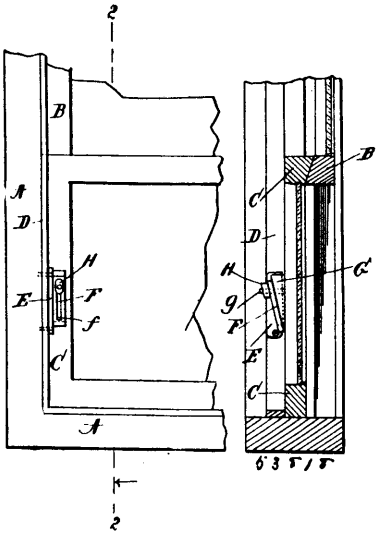
Claim.—1st. A rein-holder, comprising a vertical arm fixed relatively to the dash-board of a vehicle and terminating at its upper end in a hand, a second arm pivoted thereto and also terminating at its upper end in an opposing hand, a spring for holding said hands together, and a lever bearing against the pivoted arm, whereby it may be operated, substantially as and for the purpose set forth. 2nd. A rein-holder, comprising a socket-piece fixed relatively to a part of the vehicle, a vertical arm longitudinally adjustable in said socket-piece, and terminating at its upper end in a hand and provided below the same with a longitudinal slot, a second arm pivoted in said slot and provided at its upper end with an opposing hand, a spring secured to the socket-piece, and a foot lever pivoted to the socket-piece and bearing against the opposite side of said pivoted arm, substantially as and for the purpose set forth. 3rd. A rein-holder, comprising a tubular socket-piece fixed relatively to a part

of the vehicle, a slotted arm terminating at its upper end in a hand, engaging said socket-piece, a set-screw impinging upon said arm



and carried by said socket-piece, a second arm pivoted in the slot of the first-named arm and terminating also at its upper end in a hand, a slotted spring bearing against one side of the first-named arm, and a pivoted lever bearing against the opposite side of said arm, substantially as set forth. 4th. A rein-holder, comprising a tubular socket-piece fixed relatively to a part of the vehicle, a slotted arm terminating at its upper end in a hand, engaging said socket-piece, a set-screw impinging upon said arm and carried by the socket-piece, a second arm pivoted in the slot of the first-named arm and terminating at its upper end in a hand, a slotted spring bearing against one side of the first-named arm, a pivoted lever bearing against the opposite side of said arm, and a pin projecting from the hand of the pivoted arm and engaging a socket in the hand of the first-named or fixed arm, substantially as set forth. 5th. A rein-holder, comprising a socket-piece fixed relatively to a part of the vehicle, a vertical arm longitudinally adjustable in said socket-piece, and terminating at its upper end in a hand and provided below the same with a longitudinal slot, a second arm pivoted in said slot and provided at its upper end with an opposing hand, a spring secured to the socket-piece and bearing against the pivoted arm to hold its hand in its closed position, a foot-lever pivoted to the socket-piece and bearing against the opposite side of the said pivoted arm, and a bracket, comprising a pair of horizontal portions, one of which is secured to the foot-board of the vehicle and the other to the foot or base plate of the socket-piece, and an inclined portion connecting said horizontal portions, substantially as set forth.

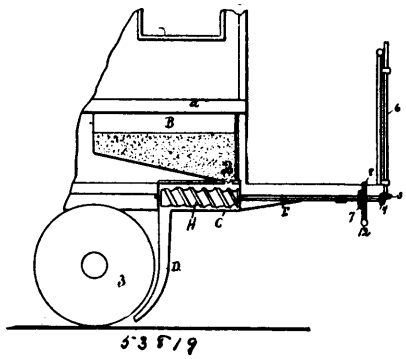
No. 53,818. Sash Holder. (*Arrête-croisée.*)



William Austin Hutchinson, Valleys, California, U.S.A., 17th October, 1896; 6 years. (Filed 24th September, 1896.)

Claim.—1st. The combination with the frame of a window, of a plate secured thereto, and provided with an outward directed flange or plate, which is inclined from its upper end, outwardly, backwardly and downwardly, said flange or plate being also provided with a central longitudinal slot, and a wedge provided with a bolt which passes through said slot, by which said wedge is operated, substantially as shown and described. 2nd. The herein described support for a window sash, consisting of a plate which is adapted to be secured to the frame of a window, said plate being provided with outwardly and backwardly inclined flange or plate, having a longitudinal slot formed therein, and a wedge which is mounted on the outer side of said flange or plate, and provided with a bolt, which passes through said slot, substantially as shown and described. 3rd. The herein described sash support, which consists of a plate, which is adapted to be secured to a window frame, and on which is formed an inclined plate or flange, which is provided with a longitudinal slot or opening, and a wedge provided with a bolt, which projects through said slot or opening, and on which is placed a nut, burr or head substantially as shown and described.

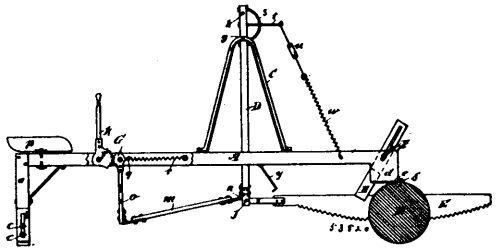
No. 53,819. Sand-Box. (*Boîte à sable.*)



Jacob A. Rose, Omaha, Nebraska, U.S.A., 17th October, 1896; 6 years. (Filed 26th September, 1896.)

Claim.—In a sand box the combination of a reservoir provided with a feed-opening, a cylindrical casing positioned below the sand-box and communicating with said feed-opening, said casing being provided with a spout, a feed-spiral within said casing, a shaft supporting said spiral and extending the full length of said casing, a gear upon said shaft, an actuating-gear meshing with said shaft-gear, said shaft-gear being further provided with a ratchet-wheel and a gravity-actuating pawl-arm provided with a pawl and adapted to actuate such ratchet, all substantially as and for the purpose set forth.

No. 53,820. Log Sawing Machine.
(*Machine à scier les billots.*)



John Howard Eastabrooks and Louis Henry Klaas, both of Hinckley, Illinois, U.S.A., 17th October, 1896; 6 years. (Filed 21st September, 1896.)

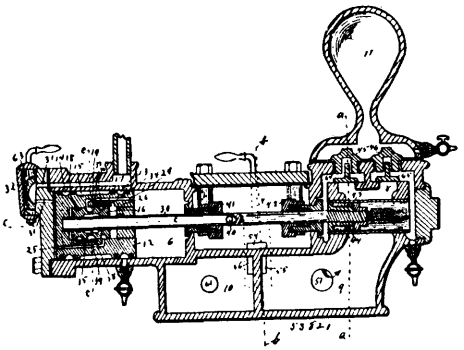
Claim.—1st. In a portable sawing machine of the type specified, the combination with the frame having a seat as specified, the pendulum, saw and connecting rod *m*, of the pivoted standing lever *k*, and pendent lever *l*, having meshing toothed heads, the pendent lever having foot rests, as shown and described, whereby the levers are made to move together in the same direction. 2nd. In a portable sawing machine of the type specified, the combination with the frame, pendulum, saw, connecting rod, and geared levers *k*, *l*, of the spring *r*, arranged horizontally and attached to said frame and the head of one of the levers, whereby it tends to hold the levers vertical as specified.

No. 53,821. Steam Pump. (*Pompe à vapeur.*)

Jay Byron Rhodes and Joseph Franklin Phillips, both of Kalamazoo, Michigan, U.S.A., 17th October, 1896; 6 years. (Filed 25th September, 1896.)

Claim.—1st. A steam pump having a main exhaust compartment, and a water-compartment, a valve-chamber at the juncture of said

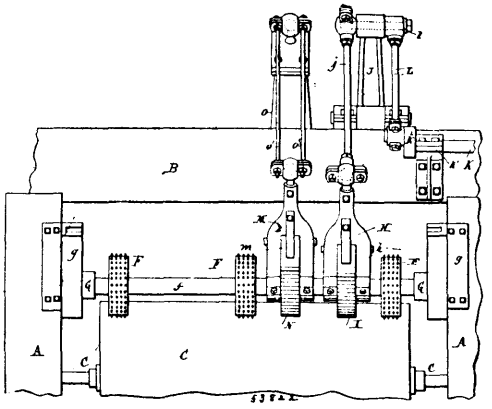
compartments, ports leading from the main exhaust-compartment through said valve-chamber, and into the secondary exhaust-com-



partment and water-compartment, and a valve in said chamber adapted to direct the exhaust steam either into the water-compartment, or the secondary exhaust-compartment, substantially as set forth. 2nd. A steam-pump, comprising a steam-cylinder and exhaust-chamber, a hollow piston-head, a hollow piston-rod, a steam actuated valve in the hollow piston-head and adapted to slide on the hollow piston rod, steam ports co-acting with the slide valve, said valve having radial ports leading into the hollow piston-rod, steam passages, whereby the steam actuates the valve, exhaust-passages leading into the hollow piston-rod, and said piston rod exhausting into the exhaust-chamber, substantially as set forth.

No. 53,822. Hoop Cutting Machine.

(*Fendoir de tonnelier.*)



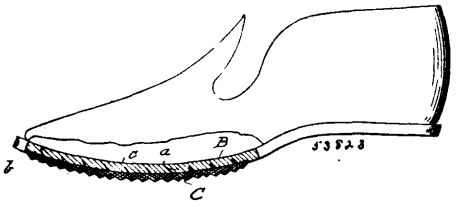
D. H. Burrell and Company, Little Falls, New York, assignee of Newell Nathaniel Fairshield, Wyandotte, Michigan, both in the U.S.A., 20th October, 1896; 6 years. (Filed 28th September, 1896.)

Claim.—1st. In a hoop cutting machine, the combination with a radial knife and a tangential knife and mechanism whereby said knives are caused to cut successively, of a feed shaft provided with feed wheels which impinge against the log and with a ratchet wheel, a feed lever provided with a pawl which engages with said ratchet wheel, and a driving crank connected with said feed lever and imparting to the same a backward movement in excess of one tooth and a subsequent idle forward movement during the cutting periods of both knives and a forward feed movement during the period in which both knives are disengaged from the log, substantially as set forth. 2nd. In a hoop cutting machine, the combination with the feed shaft provided with feed wheels which impinge against the log and with a ratchet wheel, of a feed lever mounted loosely on said shaft and provided with a pawl which engages with said ratchet wheel, a driving shaft arranged above said feed shaft and parallel therewith, a crank mounted on said driving shaft, a rock arm arranged in rear of the feed and driving shafts, a connecting rod extending from said driving crank rearwardly to said rock arm, and a connecting rod extending from said rock arm forwardly to said feed lever, substantially as set forth.

No. 53,823. Shoe. (*Chaussure.*)

The McKay Neverslip Sole Company, assignee of Robert McKay, both of Detroit, Michigan, U.S.A., 20th October, 1896; 6 years. (Filed 28th September, 1896.)

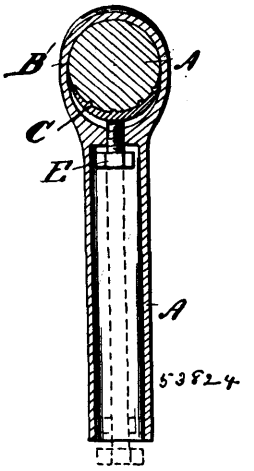
Claim.—1st. In a boot or shoe, the sole proper having a margin of uncut leather, a series of transverse slits within this margin extending upward but partially through the sole, and a rubber covering for the slit portion, whereby the full thickness of the sole is preserved for wear, with increased flexibility. 2nd. In a boot or shoe, the



sole proper, an integral marginal flange forming within a recess, transverse slits or cuts but partially through said sole on the bottom side within the flange, and a flexible covering for said recess. 3rd. In a shoe, a sole of leather or similar comparatively inflexible material having a portion thereof transversely scored on its under side, leaving an uncut margin all around said scored portion, and a flexible covering for said scored portion.

No. 53,824. Bicycle Handle Bar.

(*Barre de poignée de bicycle.*)



Anderson Cycle and Manufacturing Company, assignee of Edwin Saurus Anderson and Burton William Scott, all of Detroit, Michigan, U.S.A., 20th October, 1896; 6 years. (Filed 28th September, 18 6.)

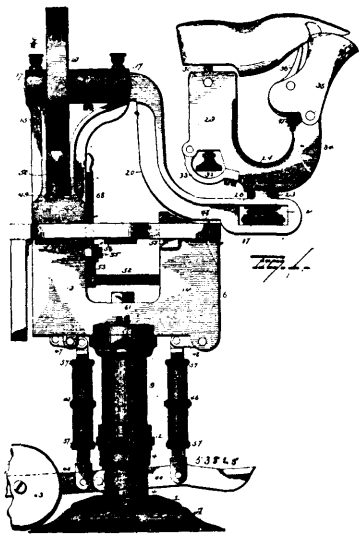
Claim—1st. In a bicycle, the combination of a wooden handle bar and the handle bar clamp, said wooden handle bar enlarged at the portion where it enters the clamp, substantially as described. 2nd. In a bicycle, a handle bar clamp consisting of a ring, a movable clamping shoe, and means for forcing the shoe against the handle bar, substantially as described. 3rd. In a bicycle, a handle bar clamp consisting of a ring, having a transverse groove in the lower side, a movable clamping shoe provided with a tongue adapted to move up and down in the groove, the steering post and a nut run onto the steering post and against the tongue, substantially as described. 4th. In a bicycle, a handle bar clamp consisting of a ring, a clamping shoe inside of the ring provided with a depending flange to cover the opening in the ring as the clamping shoe is raised, and means for forcing the shoe against the handle bar, substantially as described. 5th. In a bicycle, a handle bar clamp consisting of a ring, having an indentation around a portion of its edge, a clamping shoe provided with a flange filling said indentation, and means for setting said clamping shoe, substantially as described.

No, 53,825. Lasting Jack. (*Cric à enformer*)

Daniel Porter Pewthers and William Armstrong Connolley, both of Portsmouth, Ohio, U.S.A., 20th October, 1896; 6 years. (Filed 30th September, 1896.)

Claim.—1st. In a lasting jack, the combination with a movable support and a frame pivoted thereto and adapted to carry a last and having a friction wheel thereon, of a frictional device carried by the movable support and adapted to engage the wheel on the movable frame for holding the letter in any desired position, substantially as set forth. 2nd. In a lasting jack, the combination with a support, a movable frame pivoted thereto, a wheel on the movable frame and a brake arranged to engage the periphery of the wheel for holding the frame in any desired position relative to the support, of last-carrying devices movably supported on the movable frame, substantially as set forth. 3rd. In a lasting jack, the combination with a frame, of an arm pivotally connected thereto and having last-carrying devices connected thereto, a balance wheel on said arm and a brake operating on the rim of said balance wheel for

locking the arm in any desired position, substantially as set forth. 4th. In a lasting jack, the combination with a frame and an arm

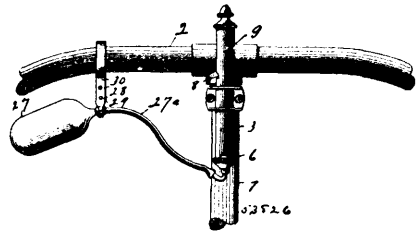


pivotally supported thereon and having last-carrying devices connected therewith, of a support and locking mechanism operating in connection with the arm and means for simultaneously operating said anvil and locking mechanism, substantially as set forth. 5th. In a lasting jack, the combination with a frame and an arm pivotally supported thereon and having last-carrying devices connected therewith, of a support and a brake, means connecting them whereby they are operated simultaneously and a lever for operating said parts, substantially as set forth. 6th. In a lasting jack, the combination with a frame and an arm pivotally supported thereon and having last-carrying devices connected therewith, of a support and a brake, levers connected to each of said parts and an operating lever and rods extending from said operating lever and connecting it with the levers which are connected to the support and brake respectively, substantially as set forth. 7th. In a lasting jack, the combination with a frame and an arm pivotally supported thereon and having last-carrying devices connected therewith, of a bell-crank lever pivoted to the frame and a support on said lever adapted to support the arm in one of its positions and an operating lever connected with said bell-crank lever, substantially as set forth. 8th. In a lasting jack, the combination with a frame, an arm pivotally supported thereon and having last-carrying devices connected therewith and a balance wheel connected to said arm, of a spring-actuated brake adapted to operate upon said wheel to lock the arm in any of its positions and an operating lever for removing said brake from the wheel, substantially as set forth. 9th. In a lasting jack, the combination with a frame and an arm pivotally supported thereon, said arm having a balance wheel and last-carrying devices connected therewith, of a spring-actuating sliding brake, a lever connected therewith and operating lever and a rod connecting said levers, substantially as set forth. 10th. In a lasting jack, the combination with a frame, an arm pivotally connected therewith and a yoke supported on said arm, of a heel post pivoted to said yoke, a screw for adjusting the post and a guard for preventing accidental displacement of the set screw, substantially as set forth. 11th. In a lasting jack, the combination with a base and a frame, of a screw-threaded ferrule pivotally connected with the base, a casing on said ferrule to which the frame is secured, said casing having an elongated recess, a projection extending from the ferrule into said recess and a nut adapted to turn on the ferrule and support the casing whereby to raise or lower said casing when it is turned, substantially as set forth. 12th. In a lasting jack, the combination with a base and frame, of a standard means for raising and lowering the frame, a support, a brake and operating lever and extensible rods extending from the operating lever to the support and brake respectively, substantially as set forth. 13th. In a lasting jack, the combination with a frame having two rigid arms thereon and an arm pivotally connected with one of said rigid arms, said pivoted arm adapted to swing into proximity to one of the rigid arms when in one of its positions, of a removable table having recesses adapted to receive the rigid arms, said table held from being removed from the frame by the pivoted arm when in its position in proximity to the rigid arm, substantially as set forth.

No. 53,826. Bicycle Whistle. (*Sifflet de bicycle.*)

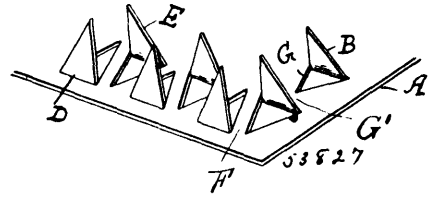
William E. Crump and John T. J. Martin, both of Sealy, Texas, U.S.A., 20th October, 1896; 6 years. (Filed 1st October, 1896.)

Claim.—1st. In a bicycle whistle, the combination with a barrel provided with a vent, of a removable stop located in the barrel and provided with an air chamber and air passage communicating therewith. 2nd. In a bicycle whistle, the combination with a barrel provided with a vent, of a removable stop in said barrel and having



an air chamber opening out through the vent, and an air passage in communication with the air chamber, and a cap for the barrel, said cap being screwed on to the barrel. 3rd. In a bicycle whistle, the combination with a barrel provided with a series of vents, of a removable stop located in the barrel and having a series of air passages in communication with said vents. 4th. In a bicycle whistle, the combination with a barrel provided with a series of vents located in such positions that a series of properly pitched notes can be sounded, of a removable stop located in the barrel and provided with a series of air chambers opening out through the vents and with individual air passages communicating with the chambers. 5th. In a bicycle whistle, the combination with a barrel provided with a series of vents located at unequal distances apart, of a removable stop located within the barrel and provided with a series of chambers opening out through the vents, said stop being provided with longitudinal cuts so that individual air passages are provided leading to the respective chambers. 6th. In a bicycle whistle, the combination with a barrel provided with a vent, and having a conical bowl, of a stop located in the barrel and bowl, said stop being provided with an air chamber opening out through the vent, and also being cut away to provided an air passage leading to said chamber, means for connecting the whistle to the bicycle, an air bulb and a pipe connection leading to the barrel.

No. 53,827. Cattle Guard. (*Garde-bétail.*)



The Sheffield Car Company, Three Rivers, assignee of Asa G. Dailey, Detroit, both in Michigan, U.S.A., 20th October, 1896; 6 years. (Filed 2nd October, 1896.)

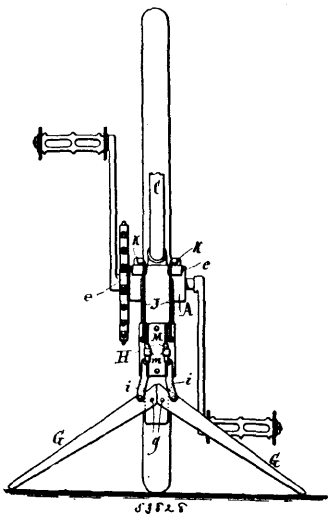
Claim.—1st. A cattle guard section formed of a sheet of metal, having pointed teeth alternately struck up in different directions and in rows, to leave the tooth spacing strip F and the row spacing strips G', of substantially uniform width. 2nd. In a cattle guard section formed of a sheet of metal, triangular teeth alternately struck up therefrom in different directions and in rows, and a web substantially uniform width left between the teeth and between the rows, substantially as described. 3rd. A cattle guard section formed of sheet metal, triangular teeth struck up therefrom in separated rows, the apertures thus formed being alternately on opposite sides of the base of the teeth, the teeth bent to be separated, substantially equal distances.

No. 53,828. Bicycle Support. (*Support de bicycle.*)

Irvin Parker Doolittle, Redlands, California, U.S.A., 20th October, 1896; 6 years. (Filed 1st October, 1896.)

Claim.—1st. In a bicycle support, the combination with a supporting bracket and a carrying arm hinged at its upper end to said bracket and arranged to swing lengthwise of the machine and laterally swinging legs pivoted to the free end of said carrying arm, substantially as set forth. 2nd. The combination with the main frame and the crank shaft hanger of a velocipede, of a support for the machine consisting of a carrying arm hinged at its upper end to the crank shaft hanger or adjacent portion of the velocipede frame and arranged to swing upwardly against the underside of the lower front member of the frame, and laterally swinging legs pivoted at their upper portions to the free end of said carrying arm and capable of being folded side by side, substantially as set forth. 3rd. In a bicycle support, the combination with a supporting bracket and a carrying arm hinged at its upper end to said bracket and arranged to swing lengthwise of the machine, laterally swinging legs pivoted to the free end of said carrying arm and an automatic clasp or catch arranged on said carrying arm and adapted to engage with the lower front member of the velocipede frame, substantially as set forth. 4th. In a bicycle support, the combination with a supporting bracket and a carrying arm hinged at its upper end to said bracket

and arranged to swing lengthwise of the machine, laterally swinging legs pivoted to the free end of said carrying arm, a slide arranged



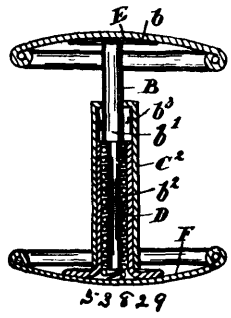
to move lengthwise on said carrying arm, and connections extending from said slide to said pivoted legs respectively, substantially as set forth. 5th. In a bicycle support, the combination with the supporting bracket and a carrying arm hinged at its upper end to said bracket and arranged to swing lengthwise of the machine, laterally swinging legs pivoted to the free end of said carrying arm, a slide arranged to move lengthwise on said carrying arm, connections between said slide and said pivoted legs, and a shifting rod attached at its front end to said slide and connected at its rear end with said bracket by a pivot which is offset with reference to the pivot of the hinged carrying arm, substantially as set forth. 6th. In a bicycle support, the combination with a supporting bracket and carrying arm hinged at its upper end to said bracket and arranged to swing lengthwise of the machine, laterally swinging legs pivoted to the free end of said carrying arm, a slide guided on said carrying arm and provided on its front side with a pair of yielding jaws adapted to embrace the lower front member of the velocipede frame, connections between said slide and said pivoted legs, and a pivoted shifting rod connecting the slide with said supporting bracket, substantially as set forth. 7th. In a bicycle support, the combination with a supporting bracket and a carrying arm hinged at its upper end to said bracket and arranged to swing lengthwise of the machine, laterally swinging legs pivoted to the free end of said carrying arm, a slide guided on said carrying arm and having on its front side a pair of yielding jaws provided at their free ends with anti-friction rollers, connections between said slide and said pivoted legs, and a pivoted shifting rod connecting the slide with said supporting bracket, substantially as set forth. 8th. In a bicycle support, the combination with a supporting bracket, of a carrying arm hinged to said bracket and provided with an automatic catch adapted to engage with said bracket for holding the arm in its depending position and folding legs pivoted to the free end of said arm, substantially as set forth. 9th. In a bicycle support, the combination with a supporting bracket, of a carrying arm hinged to said bracket and provided on its front side with a catch or clasp adapted to engage with the lower front member of a velocipede frame and on its rear side with a catch adapted to engage with said bracket and folding legs pivoted to the free end of said arm, substantially as set forth. 10th. The combination with the main frame and the crank shaft hanger of a velocipede, of a support for the machine attached to the same at or near the crank shaft hanger and capable of moving lengthwise of the machine, a brake arm or lever arranged between the crank shaft hanger and the rear wheel of the machine, and a connection whereby said brake lever is actuated from the movable bicycle support, substantially as set forth. 11th. The combination with the main frame and the crank shaft hanger of a velocipede, of a support for the machine hinged at its upper end to the machine at or near the crank shaft hanger and capable of swinging lengthwise of the machine, a brake lever arranged between the crank shaft hanger and the rear wheel and pivoted at its upper end to the frame, a brake shoe arranged on the rear side of the brake lever and adapted to bear against the rear wheel, and a link connecting the free lower end of the brake lever with said hinged support, substantially as set forth.

No. 53,829. Detachable Fastening for Cuff Links, etc.

(*Attache de chaînons pour poignets, etc.*)

Ambrose Kent & Sons, assignees of John Marshall Parkinson, both of Toronto, Ontario, Canada, 20th October, 1896; 6 years. (Filed 1st October, 1896.)

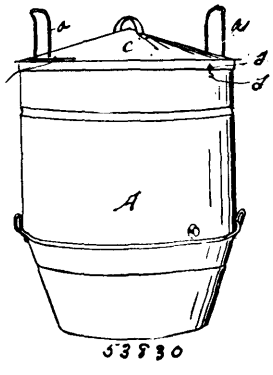
Claim.—1st. In a fastener for cuff links, studs and similar articles, the combination with one ornamental end, having a stem with enlarged portion and reduced outer portion and a projection at the end of the enlarged portion, of the opposite ornamental end, the



tubular stem attached thereto, the inwardly extending flange on outer end of such stem, and the notch in such flange on the edge of the hole formed in the end, as and for the purpose specified. 2nd. In a fastener for cuff links, studs and similar articles, the combination with one ornamental end, having a stem with enlarged portion and reduced outer portion and a projection at the end of the enlarged portion, of the ornamental end, the tubular stem attached thereto, the inwardly extending flange at the outer end of such stem, the notch in such flange on the edge of the hole formed in the end, and a spiral spring located within the tubular stem, as and for the purpose specified.

No. 53,830. Dish-Washing Machine.

(*Machine à laver la vaisselle.*)

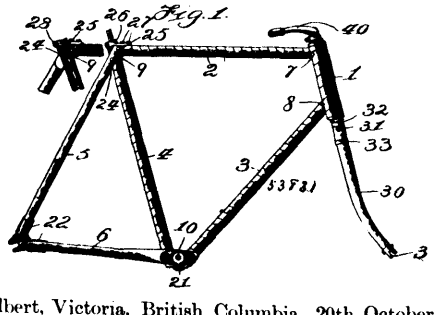


Amanda M. Unger, Canton, Ohio, U.S.A., 20th October, 1896; 6 years. (Filed 7th April, 1896.)

Claim.—1st. In a dish-washing machine, the combination of the receptacle A, having located in the bottom or lower portion thereto a spring, the cage B, provided with handles extended above the cage, the cover C detachably connected to the body and provided with the curved slots *h*, through which the handles extend, and the splash-ring D located within the top or upper portion of the body A, substantially as and for the purpose set forth. 2nd. In a dish-washing machine, the combination of a receptacle having connected thereto the splash-ring D, the cage B provided with handles, the spring E provided with the disc F, the extended portion *f*, and the aperture *g* formed in the bottom or lower end of the cage, and the cover C provided with grooved slots through which the handles extend, all arranged substantially as and for the purpose set forth.

No. 53,831. Wooden Bicycle Frame.

(*Cadre en bois pour bicycles.*)



Justin Gilbert, Victoria, British Columbia, 20th October, 1896; 6 years. (Filed 28th September, 1896.)

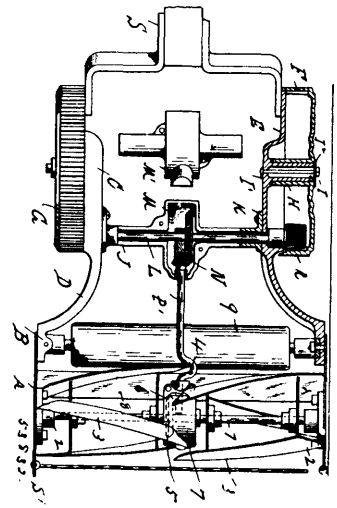
Claim.—1st. A wooden bicycle frame comprising suitable frame-forming members, and a front steering-fork formed of two parts

having at their upper ends, enlargements for spacing them apart and having a metallic rod or bar forming a steering-post secured between the enlargements of the fork, by a bolt which binds them together, as explained. 2nd. In a wooden bicycle frame having suitable wooden frame-forming parts, a front steering-fork formed of wood with an enlarged head and having the steel or equivalent metallic steering-post secured therein by transverse bolts passing therethrough, as explained. 3rd. In a wooden bicycle frame, the combination of suitable frame-forming parts, and the front wooden fork formed with the integral wooden-head, and the metal steering-post projecting therefrom and the metal binding ring on the head, as and for the purposes set forth. 4th. In a wooden bicycle frame, the combination of the steering-head, the reach and drop-bar joined thereto, the saddle-bar and the rear fork, said reach and saddle-bar being joined together and the joint secured by the overlapping bars of the rear fork, as shown and described. 5th. In a wooden bicycle frame, the combination of the steering-head, the drop-bar, the saddle-bar, and the rear fork, said drop-bar and saddle-bar being formed with enlargements fitted together to form a crank-axle bearing as explained. 6th. In a bicycle frame formed principally of wood the formation of two members of the frame with enlargements joined together to form a hub for the crank-axle, as explained. 7th. In a bicycle framed formed principally of wood, the formation of two members with enlargements joined together to afford a bearing for an axle, and two intersecting members seated laterally across the two joined members and secured thereto by bolts or equivalent means, substantially as and for the purposes set forth. 8th. In the combination of bicycle frames principally or wholly of wood, a frame-member or part constructed of a hollow bar made up of strips of wood having the grain running lengthwise and wound about a removable core alternately different angles, as explained. 9th. In the construction of bicycle frames, the wood bar or member of multiple structure made up of a number of spirally wound strips, reduced to enter the bore in an adjacent part, by removal of an outer layer of the strips and having the reinforcing plug inserted, substantially as and for the purposes set forth. 10th. In a bicycle frame, the combination of the two downwardly extending members having at their meeting ends enlargements to form a crank-axle hub, and the two rearwardly extending members enlarged at their forward ends and there lapped laterally upon the hub and bearings mounted upon the members last named, as explained. 11th. A bicycle frame comprising a steering-head, a drop-bar, a perch, the rear fork having its lower bars formed with vertically enlarged forward ends providing a divided crank-bracket lapping the meeting ends of the drop-bar and perch, which are mortised therein, and the crank-axle bearings mounted on the sides of the forward ends of the lower bars, substantially as described. 12th. In a bicycle frame, the combination of the steering-head, the reach and drop-bar tenoned into said steering-head, and the binding clamps surrounding the head, as set forth. 13th. In combination with the wooden steering head, the reach and drop-bar tenoned therein and the clamps surrounding the ends of the said steering head, to prevent splitting, and being adjustable for binding said clamps on the head, as set forth. 14th. A bicycle frame comprising a drop-bar, a reach, a rear fork having lower bars between the forward ends of which the adjacent ends of the drop-bar and perch are mortised, the axle mounted loosely in the adjacent ends of the drop-bar, perch, and lower bars, the cups having flanges secured to the forward ends of the lower bars around the axle, the cones adjustable on the axle, the jamb-nuts secured to the axle, and the rollers located between the cups and the cones, substantially as described. 15th. A bicycle frame comprising a wooden steering-head, a reach mortised into the steering-head, a drop-bar mortised into the steering-head, the front fork, the lower cone supported on the fork, the lower cup having a sleeve fitting in the lower end of the steering-head, the upper cone having a sleeve fitting in the upper end of the steering-head, and the turning post carrying an upper cup and extending through the cones through the steering-head, through the outer ends of the reach and drop-bar and secured to the front fork, substantially as described. 16th. A bicycle frame comprising a wooden steering-head, a reach mortised into the steering-head, a drop-bar mortised into the steering-head, the front fork and the turning post extending through the steering-head through the ends of the reach and drop-bar which are mortised into same as aforesaid, and secured to the front fork, and means for clamping said wooden steering-head to prevent the same from splitting, substantially as described.

No. 53,832. Lawn Mower. (*Tondeuse pour pelouses.*)

Frederick T. Maynard, Detroit, Michigan, U.S.A., 20th October, 1896; 6 years. (Filed 28th September, 1896.)

Claim.—1st. In a lawn mower having an intermediate drive connection, a frame comprising side plates, a rigid connection between the side plates and the drive shaft supported therein. 2nd. In a lawn mower having an intermediate drive connection, a frame comprising side plates, a rigid hollow connection between the same and the drive shaft supported therein. 3rd. In a lawn mower having an intermediate drive connection, a frame comprising side plates, a rigid hollow connection between the same intermediate the ends, forming a support for the drive shaft, and a housing for the gearing formed on said connection. 4th. In a lawn mower having an intermediate drive connection, a frame comprising side plates, a rigid hollow connection between the same having flaring end flanges secured on the side plates, the drive shaft being adapted to be supported therein, a gear box, half formed integral with said connec-



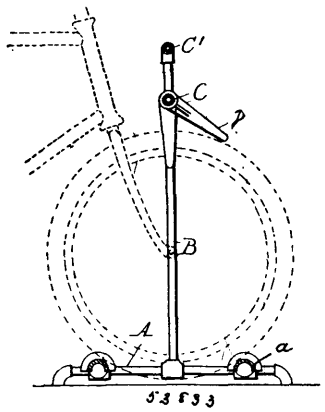
tion and a detachable top complementary half. In a lawn mower having an intermediate drive connection, a frame comprising side plates, a rigid connection between the same in which the drive shaft is adapted to be supported, a gear thereon formed half integral therewith and a complementary top section therefor. 6th. The combination of a driven shaft, a recess or recesses formed therein having a shoulder at one end and an inclined or eccentric bottom face, of an enclosing wheel and rolls in the recesses of the shaft with their outer portions projecting beyond the circumference thereof for the purpose described. 7th. The combination of a driven shaft, opposite recesses formed therein having a shoulder at one end and an inclined or eccentric bottom face, rollers in the recesses, a wheel enclosing the rollers, the wheel having a recess for the rollers, and bearings at the end of the recess on the shaft. 8th. The combination of a shaft, recesses formed therein, said recesses having a shoulder at one end and an inclined bottom face, rollers in the recesses, a wheel enclosing the shaft and rollers, the wheel having a recess or groove, its sides serving as stops for the end movement of the rollers. 9th. In a lawn mower having a middle drive connection, the combination of the side frames, the tubular connection between the rear portion thereof, a central gear case thereon, a drive shaft in the connection, gears in the case to drive the cutter, pinions on the ends of the drive shaft, a clutch or pawl connection between the pinions and shaft, ground wheels enclosing the pinions and gears on the ground wheels meshing with the pinions. 10th. In a lawn mower, a frame comprising side bars, a hollow rear portion thereon, a circular flange on the outer face of such rear portion, a trunnion on the hollow rear portion and a ground wheel having a lateral flange enclosing the circular flange and an inwardly extending hub journalled on the trunnion. 11th. In a lawn mower, a frame comprising side bars consisting of two parallel end sections in different vertical planes and an inclined connecting section, the rear straight section being hollow or recessed, a circular flange on the outer face of the rear portion and a hollow connecting member between the hollow or recessed portions of the rear section. 12th. In a lawn mower, a frame comprising side bars having an inward bend intermediate the ends and the ground wheels on the portion in rear of the bend. 13th. In a lawn mower, the combination of revolving cutters, the side bars to near which the cutter extends at each end, an intermediate drive connection for the cutters and rollers journalled in the frame projecting slightly beyond the side of the frame, for the purpose specified. 14th. In a lawn mower, the combination with the side bars of the frame of thin metal, ears projecting inside the bars at the front, a vertical roller journalled in the ears and having a sector projecting beyond the outer face of the side bars, for the purpose described.

No. 53,833. Bicycle Stand. (*Support pour bicycles.*)

Mark A. Sheldon, Detroit, Michigan, U.S.A., 20th October, 1896; 6 years. (Filed 28th September, 1896.)

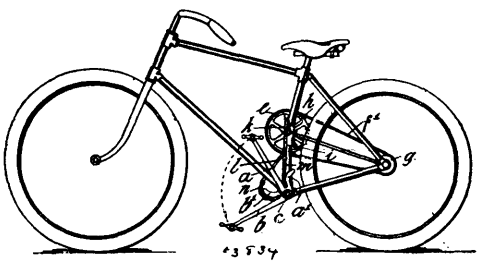
Claim.—1st. The combination in a bicycle stand formed with the wheel-supporting base, of a cross-bar supported above said base, and provided with a series of pendent fingers. 2nd. The combination in a bicycle stand formed with a wheel-supporting base, of a cross-bar supported above said base, provided with a series of pendent fingers sleeved upon said cross-bar, free to move. 3rd. The combination in a bicycle stand, of a wheel-supporting base formed with individual grooves for the rims of the wheels and a cross-bar supported above said base and provided with a series of pendent fingers. 4th. The combination in a bicycle stand, of the wheel-supporting base provided with the grooved cross-bars A', the vertical standards B B, the cross-bar C provided with a series of loose

pendent fingers and the supplementary cross-bar C¹. 5th. In a bicycle stand, a series of pendent fingers arranged upon a bar or



support for the bicycle wheel, whereby said fingers are adapted to admit of engaging the front wheel between them and support it in position.

No. 53,834. Driving Mechanism for Cycles, etc.
(*Mécanisme conducteur pour cycles, etc.*)



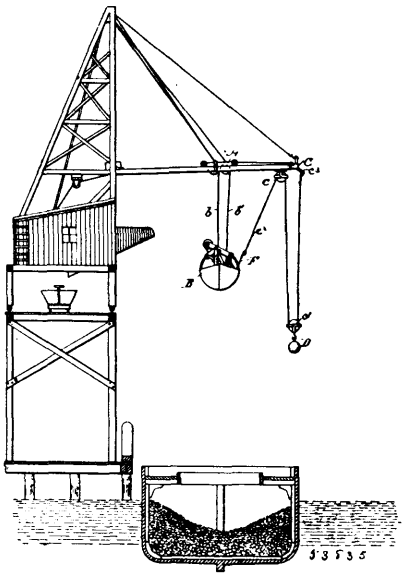
William Henry Trengrove, Christchurch, Colony of New Zealand, 21st October, 1896; 6 years. (Filed 1st October, 1896.)

Claim.—1st. In mechanism for driving cycles and other machines, the combination with a vibrating lever to which the power is applied of a cam integral with or adjustably secured thereto, a flexible connection, one portion of which winds upon the periphery of the cam, connecting the cam to a crank upon an axle, which is thereby caused to revolve and to propel or actuate the machine, substantially as and for the purposes described herein. 2nd. In combination, the lever *a*, cam *a l*, connecting rod *k* having a flexible end *m*, and the crank *h* upon the axle *c*, as specified. 3rd. In driving mechanism of cycles and other machines, the cam made separate from and adjustably connected to the lever to which the power is applied, substantially as and for the purposes specified. 4th. In driving mechanism of cycles and other machines, the combination and arrangement of parts, substantially as and for the purposes herein described.

No. 53,835. Steam Shovel. (*Pelle à vapeur.*)

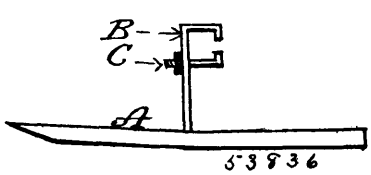
Daniel H. Kelley, Chelsea, Massachusetts, U.S.A., 21st October, 1896; 6 years. (Filed 1st October, 1896.)

Claim.—1st. As a means for automatically preventing the turning of a rope-suspended steam shovel, scoop or bucket and the twisting of its actuating rope or ropes, the combination of a horizontally movable trolley A, a shovel D, a shovel-actuating rope or ropes extending from or connecting the trolley with the shovel and movable with the trolley and also in relation to it, and an automatic shovel-steadying device comprising a rope connected to the side of the shovel and extending to a stationary pulley or block in a line diverging from that of the shovel-actuating rope or ropes, the said pulley or block, and means for exerting a constant tension upon said rope, as and for the purposes described. 2nd. The combination of a power-shovel suspended and operated by one or more ropes substantially as specified with an automatically acting steadying device comprising a rope or chain having an automatic take-up and connected with the shovel at an angle to the said suspending and operating rope or ropes, whereby a draft or pull is exerted upon the shovel sufficient to prevent the turning or twisting thereof, while suspended, as and for the purposes described. 3rd. The combination in a device of the character specified of the trolley A, the shovel B, its actuating rope or ropes, the rope c^2 attached to the side of the shovel, a stationary shovel about which said rope extends on a line diverging from that of the actuating rope or ropes, a movable pulley and a weight carried thereby, the said rope extending over the stationary pulley and around the movable pulley to a point of attachment, as and for the purposes described. 4th. The com-



bination in a machine of the character specified of a steam-shovel having a great rise and fall and also adapted to be moved laterally, its hoisting and controlling rope or ropes, a bridle attached to the corners of the steam-shovel, a steadying-rope leading from the centre of said bridle in a diverging line to a stationary pulley or block and means beyond said stationary pulley or block for exerting a constant tension upon said rope and bridle, as and for the purposes described. 5th. The combination in a machine of the character specified, of a rope-suspended steam-shovel having a great rise and fall and also adapted to be moved laterally, its hoisting and controlling rope or ropes, a steadying-rope attached to the side of the steam-shovel and extending in a diverging line over a fixed or stationary pulley or block and means beyond the pulley or block for exerting a constant tension upon said rope, as and for the purposes described. 6th. The combination in an apparatus of the character specified, of a steam-shovel having automatic movements, a stationary engine, a trolley, means connecting it with an engine for moving it horizontally, actuating and hoisting devices connecting the shovel with the trolley and stationary engine, and a rope or line extending from one side of the shovel at a point removed from the lower end of the shovel-hoisting device and arranged to diverge from said point of attachment, and means connected with the rope for exerting a constant automatic tension thereon, as and for the purposes specified. 7th. The combination in a hoisting apparatus of the character specified, of a stationary engine, a trolley, means connecting the trolley with the engine for moving the trolley, actuating means extending from the shovel to the trolley for automatically closing and opening the steam-shovel, a stationary engine and a rope or line extending diagonally from the side of the shovel outwardly to a fixed point, the said trolley and shovel having a movement away from said fixed point while the shovel is being lifted, as and for the purposes described 8th. In an apparatus of the character specified, the combination of the movable trolley, the steam-shovel, its actuating ropes, the position of which is controlled by the trolley, the steadying-rope, its weight D, and a guide with which the weight is connected and upon which it is adapted to be moved vertically, as and for the purposes set forth.

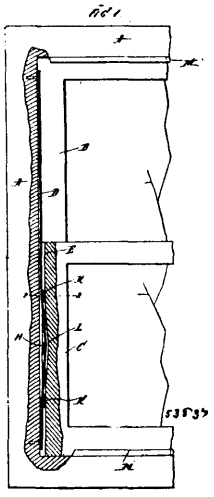
No. 53,836. Grain Saving Machine.
(*Machine à préserver le grain.*)



John W. Snyder, Dereham, Ontario, Canada, 21st October 1896; 6 years. (Filed 1st October, 1896.)

Claim.—The combination of the divider A A, with the standards B B, and the bolts C C, substantially as and for the purposes hereinbefore set forth.

No. 53,837. Friction Window Sash Balance.
(*Contrepoids de croisée à friction.*)



Peter Clark, New York, U.S.A., 21st October, 1896; 6 years. (Filed 30th September, 1896.)

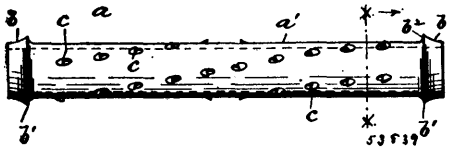
Claim.—1st. The combination with the frame of a window, and with the sashes mounted therein, of a flexible metal strip secured to the frame adjacent to each sash, and at each side thereof, said sashes being also provided at their sides with grooves in which are mounted plates having two oblong slots formed therein, and said metal strips being passed in through the upper slot and out through the lower one, substantially as shown and described. 2nd. The combination with the frame of a window, and the sashes mounted therein, of metal strips secured to the frame adjacent to the sides of the sashes, said sashes being provided in their sides adjacent to said strips with grooves, and with metal plates secured therein, said metal plates being provided with two oblong slots whereby a central cross piece and two end pieces are formed, and said metal strips being passed through said oblong slots back of the central cross pieces, substantially as shown and described.

No. 53,838. Tanning Extract. (*Extrait de tannage.*)

Max Hönig, Brünn, Moravia, Austria-Hungary, 21st October, 1896; 6 years. (Filed 3rd October, 1896.)

Claim.—The hereinbefore described process for manufacturing tannin extract from sulphite cellulose lyes, consisting in carefully neutralizing the lyes with carbonate of lime or caustic lime, then clarifying them, then evaporating them to a medium degree of concentration (between 15° and 18° Be), then mixing them with a quantity (corresponding to the amount of contained lime) of an acid, such as sulphuric acid, which yields an insoluble or difficultly soluble salt, then heating the lyes by admission of steam, so as to drive off the volatile acids, then filtering the lyes thus freed from volatile acids, so as to separate the precipitated lime salt, and, finally, concentrating the freed and separated lyes by evaporation in a vacuum apparatus to a degree of concentration of between 28° and 30° Be as set forth.

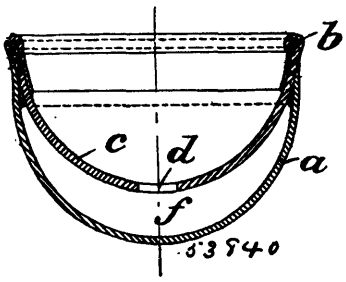
No. 53,839. Hose-Menders. (*Raccommodeur de boyau*)



John J. Cooper, Providence, Rhode Island, U.S.A., 21st October, 1896; 6 years. (Filed 5th October, 1896.)

Claim.—1st. As an improved article of manufacture, the one-piece hose-mender hereinbefore described, consisting of the short metallic tube or sleeve having its two ends provided with circular exterior flanges, and having the barrel portion of the tube provided with inclined oppositely-arranged hose-retaining spurs or teeth, substantially as set forth. 2nd. The hose-mender *a* hereinbefore described, consisting of the metallic tube or sleeve a^1, having its outer surface provided with oppositely arranged series or sets of inclined hose-retaining spurs or hooks *c* struck up therefrom, the ends of the tube being enlarged to form bevelled flanges exceeding the height of said spurs, substantially as described and for the purpose set forth.

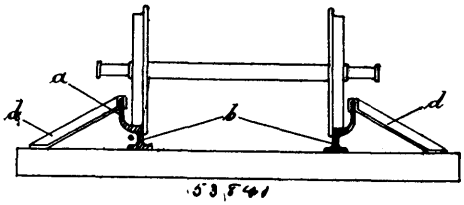
No. 53,840. Method of Making Waterproof Stone.
(*Méthode de faire de la pierre à l'épreuve de l'eau.*)



Peter Kleber, St. Johann-Saarbruchen, Prussia, Germany, 21st October, 1896; 6 years. (Filed 5th October, 1896.)

Claim.—The process of making building stones, consisting in mixing dry potash with a mixture of plaster of paris and hydraulic lime, then treating with saturated acidulated gypsum water to form a plastic mass and then pressing in moulds and placing the stones obtained into a saturated, acidulated alum solution, substantially as set forth.

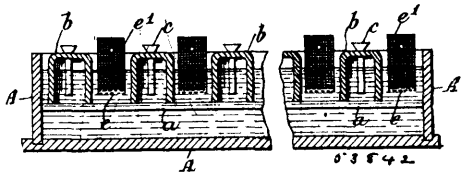
No. 53,841. Safety Rail. (*Rail de sûreté*)



Herrmann Biermann, of 5ª Paradies Strasse, Breslau, Silesia, Prussia, German Empire, 21st October, 1896; 6 years. (Filed 30th September, 1896.)

Claim.—A rail for railways, characterized by a longitudinal rib *a* projecting above the head of the rail, and rolled in one with the rail for its full length, whereby the wheels of the rolling stock are prevented from leaving the railway.

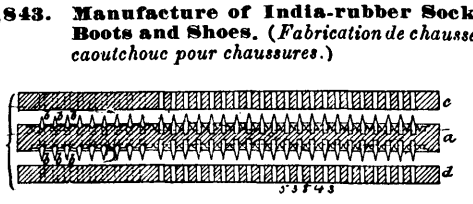
No. 53,842. Electrolytic Apparatus.
(*Appareil électrolytique.*)



Trevenen James Holland, Mount Ephraim, Tunbridge Wells, Kent, England, 21st October, 1896; 6 years. (Filed 6th October, 1896.)

Claim.—1st. A vessel for containing a solution to be electrolytically decomposed, consisting of a shallow open tank of glass, slate or other suitable material and inverted removable boxes of earthenware supported therein as explained and constituting closed air-tight cells, while their sides act as partitions for separating the electrodes, substantially as described, with reference to the accompanying drawing. 2nd. A vessel for containing a solution to be electrolytically decomposed, consisting of a shallow open tank of slate or similar material and inverted removable boxes supported therein as explained and constituting air-tight porous anode cells, while their sides act as partitions for separating the positive from the negative electrodes, the latter being grids of iron or copper wire formed substantially as described.

No. 53,843. Manufacture of India-rubber Socks for Boots and Shoes. (*Fabrication de chaussettes en caoutchouc pour chaussures.*)



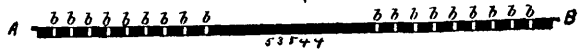
James Stansfield, Todmorden, County of York, England, 21st October, 1896; 6 years. (Filed 5th October, 1896.)

Claim.—1st. The combined apparatus for making perforated socks, substantially as described and shown hereinbefore and in the

accompanying drawings. 2nd. The spikes or punches *b* for perforating a rubber sock during the process of moulding, substantially as described and shown hereinbefore and in the accompanying drawings.

No. 53,844. India-rubber Socks or Insoles for Boots and Shoes. (*Chaussettes et fausse semelles pour chaussures.*)

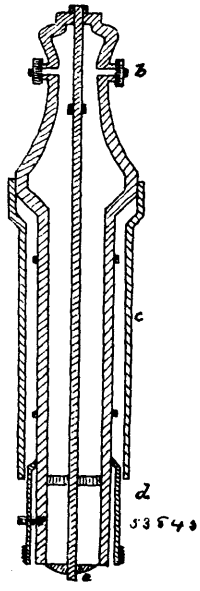
FIG 1



James Stansfield, Todmorden, York, England, 21st October, 1896; 6 years. (Filed 5th October, 1896.)

Claim.—1st. The improved sock or insole, substantially as described and shown hereinbefore and in the accompanying drawings. 2nd. In a rubber or other sock or insole, the combination of intersecting ridges of suitable angle with elevated points and ventilating holes, substantially as described and shown hereinbefore and in the accompanying drawings.

No. 53,845. Hydrant ou borne-fontaine. (*Hydrant.*)



Ludger Genest, Hull, Québec, Canada, 21 octobre 1896; 6 ans. (Déposé, 1er octobre 1896.)

Résumé.—1° Un hydrant ou borne-fontaine fourni de tuyaux de circulation à l'épreuve de la gelée, tel que décrit et pour les fins indiquées. 2° Un hydrant ou borne-fontaine pourvu de tuyaux H, en combinaison avec le tuyau F, tel que décrits. 3° Un hydrant ou borne-fontaine ayant le tuyau H, et l'espace D, tel que décrit. 4° Un hydrant ou borne-fontaine ayant l'espace D, pour les fins désignées. 5° Un hydrant ou borne-fontaine, contenant les tuyaux F et H et l'espace D, en combinaison tel que décrit et pour les fins indiquées.

No. 53,846. Process for Reducing certain Metallic Oxides by means of Amalgams of Alkaline Metals. (*Procédé pour reduire de la chaux métallique au moyen d'amalgame d'alcalin métallique.*)

Ludwig Moud, Regent's Park, County of London, England, 22nd October, 1896; 6 years. (Filed 24th December, 1895.)

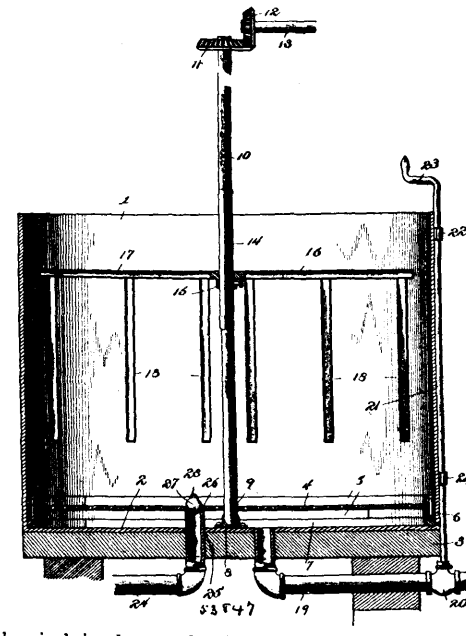
Claim.—The herein described process for reducing a metallic oxide which is soluble in a caustic alkali, by introducing into its solution in the caustic alkali an amalgam of the alkaline metal with mercury and a piece of suitable metal as cathode electrically connected to the amalgam, whereby the alkaline metal of the amalgam is oxidized producing caustic alkali and the dissolved oxide is reduced, its metallic base being deposited on the cathode.

No. 53,847. Cereal Washers and Hullers.

(*Appareil à laver et écaler les céréales.*)

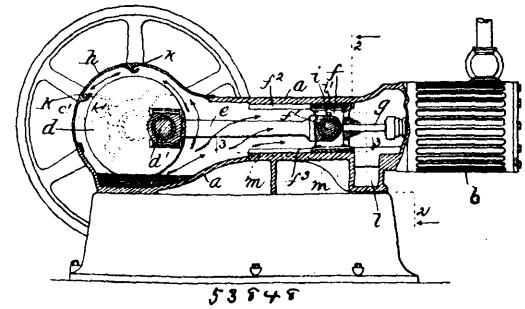
Kirk Hopkins, Springville, New York, U.S.A., 22nd October, 1896; 6 years. (Filed 9th April, 1896.)

Claim.—1st. The herein described method of preparing or treating cereals, which consists in first subjecting the cereals to the action of a chemical for loosening and breaking the hulls, and then subjecting the mass of cereals and chemical to agitation within a suitable vessel and flushing clean wash water through the mass of cereals



and chemical simultaneously with the agitation thereof, substantially as set forth. 2nd. In a cereal washer and huller, an open tub or vat having an imperforate main bottom, a perforate false bottom fitted within the tub or vat above its main bottom, an agitator supported for rotation within the tub or vat above the false botcom, a valved drain pipe fitted in the main bottom of the tub or vat, and a valved discharge pipe extended through the main bottom of the tub or vat and fitted in said false bottom, substantially as set forth. 3rd. In a cereal washer and huller, a tub or vat provided with an imperforate main bottom, a perforate false bottom removably fitted within the tub or vat and spaced above its main bottom, a bearing step arranged centrally on the upper side of the main bottom, a valved drain pipe fitted in the main bottom of the tub or vat, a discharge pipe extended through said main bottom and fitted in said false bottom, a valve removably seated in the end of the discharge pipe fitted to said false bottom, an agitator shaft stepped at its lower end in said bearing step, and a revolving agitator adjustably fitted on said shaft and provided with a series of depending agitator fingers or bars, substantially as set forth.

No. 53,848. Engine. (*Machine à vapeur.*)

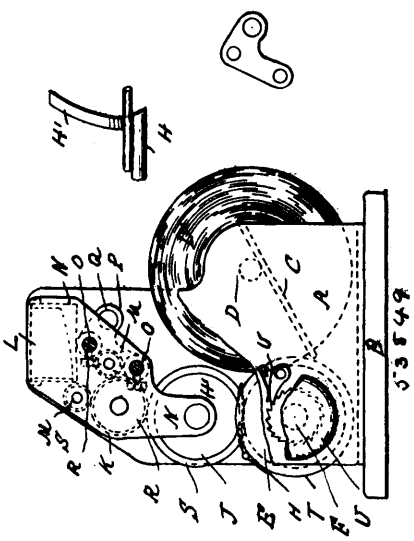


Albert L. Ide, Springfield, Illinois, U.S.A., 22nd October, 1896; 6 years. (Filed 18th July, 1896.)

Claim.—1st. The combination with an engine, of a reservoir adapted to contain lubricating oil, a moving portion of the engine being adapted to transfer said oil to bearing surfaces of the engine, a receptacle adapted to receive the oil after having been transferred, a channel, way or passage through which the oil is adapted to be passed from said receptacle to the oil reservoir, said receptacle being also adapted to receive the water that condenses from the engine, and means for withdrawing the water from said receptacle, substantially as described. 2nd. The combination with an engine, of a casing enclosing the working parts thereof, a reservoir adapted to contain lubricating oil located in said casing, a moving portion of the engine being adapted to transfer said oil to bearing surfaces of the engine, a receptacle adapted to receive the oil after having been transferred, a channel way or passage through which the oil is adapted to be returned from said receptacle to said reservoir, said receptacle being also adapted to receive the water that drops from the working parts of the engine, and means for withdrawing said

water, substantially as described. 3rd. The combination with an engine, of a casing enclosing the working parts thereof, a reservoir adapted to contain lubricating oil located within said casing, a moving portion of the engine being adapted to transfer said oil to the bearing surfaces of the engine, a receptacle adapted to receive the oil thus transferred, a channel-way or passage through which the oil from said receptacle is adapted to be returned to the reservoir, means for retarding the oil in its return from the receptacle to the reservoir, said receptacle being also adapted to receive the water that condenses from the engine, and means for withdrawing said water, substantially as described. 4th. The combination with an engine, of a casing enclosing the working parts thereof, a reservoir located within said casing adapted to contain lubricating oil, means for transferring said oil to portions of the engine having frictional contact, a receptacle adapted to receive the oil after having been thus transferred, a passage-way through which the oil is adapted to be returned from said receptacle to said reservoir, a partition or partitions located in the path of the returning oil to retard its passage, said receptacle being also adapted to receive water that condenses from the engine, and means for withdrawing said water, substantially as described. 5th. The combination with an engine, of a casing enclosing the working parts thereof, a reservoir adapted to contain lubricating oil. means for transferring said oil to parts having frictional contact, a receptacle adapted to receive the oil after having been thus transferred, means for returning the oil in said receptacle to said reservoir, partitions *p p* located in said receptacle adapted to retard the oil in its return passage to the reservoir, said receptacle being also adapted to receive the water that condenses within the casing of the engine, a chamber *n* communicating with said receptacle, and an overflow duct *o* located within said chamber, substantially as described. 6th. The combination with an engine, of a reservoir adapted to contain lubricating oil, means for casting said oil toward and upon portions of the engine having frictional contact, a receptacle located in the path of the oil as it is being cast from said reservoir adapted to receive the water as it drips from the engine and also the oil, after being thus cast, said oil and water being adapted to be separated in said receptacle, means for returning the oil from said receptacle to said reservoir, and means for withdrawing the water from said receptacle, substantially as described. 7th. The combination with an engine, of a reservoir adapted to contain lubricating oil, means for casting said oil toward and upon portions of the engine having frictional contact, a receptacle located in the path of the oil as it is being cast from said reservoir adapted to receive the water as it drips from the engine, and also the oil after being thus cast, means for returning the oil from said receptacle to said reservoir, a chamber *n* communicating with said receptacle, and an overflow duct *o*, substantially as and for the purpose described. 8th. The combination with an engine, of a reservoir adapted to contain lubricating oil, means for casting said oil toward and upon portions of the engine having frictional contact, a receptacle located in the path of the oil as it is being cast from said reservoir adapted to receive the water as it drips from the engine and also the oil after being thus cast, means for returning the oil from said receptacle to said reservoir, means for retarding the oil in its return from the receptacle to the reservoir, and means for withdrawing the water from the receptacle, substantially as and for the purpose described. 9th. The combination with an engine, of a casing enclosing working parts thereof, a crank disc or discs forming part of said engine, a reservoir located beneath said crank disc or discs, adapted to contain lubricating oil, said crank disc or discs being adapted to cast the oil from said reservoir upon parts of the engine having frictional contact, a receptacle located in the path of the oil as it is being thus cast from said reservoir adapted to receive the water as it drips from the engine and also the oil after being thus cast, said oil and water being adapted to be separated in said receptacle, means for returning the oil from the receptacle to the reservoir, and means for withdrawing the water from the receptacle, substantially as described. 10th. The combination with an engine, of a casing enclosing working parts thereof, a crank disc or discs forming a part of said engine, a reservoir located beneath said crank disc or discs adapted to contain lubricating oil, said disc or discs being adapted to cast the oil from said reservoir upon parts of the engine having frictional contact, a receptacle located in the path of the oil as it is being thus cast from said reservoir adapted to receive the water as it drips from the engine and also the oil after being thus cast, means for returning the oil from said receptacle to said reservoir, means for retarding the oil in its return from the receptacle to the reservoir, and means for withdrawing the water from the receptacle, substantially as described. 11th. The combination with an engine, of a casing enclosing working parts thereof, a crank disc or discs forming a part of said engine, a reservoir located beneath said crank disc or discs adapted to contain lubricating oil, said crank disc or discs being adapted to cast the oil from said reservoir upon parts of the engine having frictional contact, a receptacle located in the path of the oil as it is being thus cast from said reservoir adapted to receive the water as it drips from the engine and the oil after thus being cast, a passage-way between said receptacle and reservoir through which the oil is adapted to be returned to the reservoir, a partition or partitions placed within the path of the returning oil, and means for withdrawing the water from said receptacle, substantially as described. 12th. The combination with an engine, of a casing enclosing working parts thereof, a crank disc or discs forming a part of said engine, a reservoir located beneath said crank disc or discs adapted to contain lubricating oil, said crank disc or discs being adapted to cast the oil from said reservoir upon parts of the engine having frictional contact, a receptacle located in the path of the oil as it is being thus cast from said reservoir adapted to receive the water as it drips from the engine and the oil after being thus cast, a passage through which the oil from the receptacle may be returned to the reservoir, a partition or partitions located in the path of the returning oil, a chamber *n* communicating with said receptacle and a vent duct *o* communicating with said chamber, substantially as and for the purpose described.

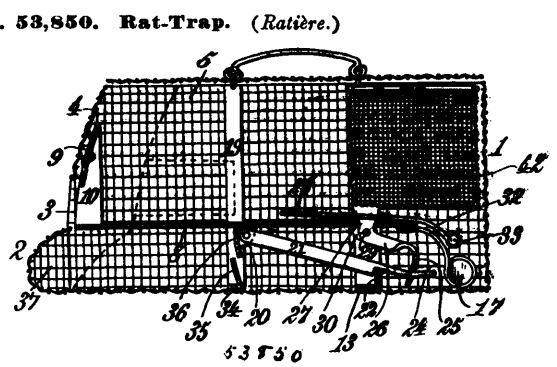
No. 53,849. Roll Paper Holder. (*Porte rouleau de papier.*)



James Rowland Brough, Warwick Lane, London, England, 22nd October, 1896; 6 years. (Filed 6th August, 1896.)

Claim.—1st. A roll paper holder, consisting in combination of a base plate B having attached to it side frame A, said side frames being provided with ledges C adapted to support the paper-roll-carrying spindle D, said side frame A being adapted to support the impression-roller spindle F and being provided with studs Q upon which studs the hangers P are pivotally hung, said hangers P supporting the spindles O upon which spindles O the printing frames N are mounted, said printing frames supporting the printing, inking and ink-distributing rollers J, K and M respectively and the ink duct L, said printing frames N being adapted to be moved along the spindles O and fixed thereon by means of set screws R, a knife H being provided with rearward extensions H^1, a hand wheel U, ratchet wheel U^1 with which a spring-actuated pawl U^{11} engages, an impression roller E having flanges T, rubber rings S and a printing pad J^1, all constructed, arranged and operating for the purposes and substantially as set forth. 2nd. In a roll paper holder having printing, inking and ink-distributing rollers J, K and M and an impression roller E, a knife H supported by the side frames and formed with rearward extensions H^1, for the purposes and substantially as set forth. 3rd. In a roll paper holder, printing frames N adapted to support a printing roller J provided with a printing pad J^1 and rubber ink-distributing rollers K and M respectively, and ink duct L, said printing frames being mounted on spindles O pivotally supported by means of hangers P, on studs Q with which the side frames are provided, said printing frames N being adapted to be moved or slid along the said spindles O and capable of being fixed in any desired position by means of set screws R, all for the purposes and substantially as set forth.

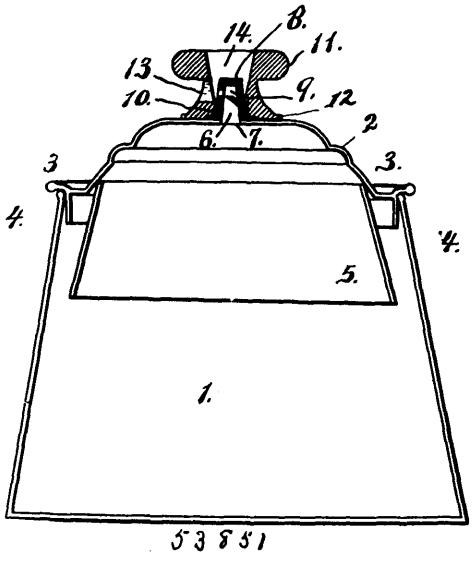
No. 53,850. Rat-Trap. (*Ratière.*)



William Henry Sallee, Columbia, Kentucky, U.S.A., 22nd October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. A rat-trap comprising two adjacent chambers, separated by a longitudinal partition, one chamber having a floor pivoted and suitably weighted, its vibrating end provided with a gate adapted to close an entrance-opening, a trigger-bar pivotally connected at one end to said floor and having a shoulder near the other end to engage a transverse rib, or plate, a tripping-bar having an eye, or loop, to receive the reduced prolongation of the tripping-bar, and a tripping-plate rigid with the tripping-bar pivotally supported above and by the floor, the separating partition having an opening which is disclosed by the drop of the pivoted floor, substantially as described. 2nd. A rat-trap, consisting of two adjacent chambers, a pivoted and weighted floor in one chamber, its vibrating end having a gate adapted to close an entrance to the trap, a trigger-bar pivotally connected to lugs on the lower face of the floor and provided with a shoulder to engage a transverse rib, or plate, and a tripping-plate lying above the floor, and having a tripping-bar rigid therewith, its end having an eye or loop to receive a prolongation of the trigger-bar, substantially as described. 3rd. In a rat-trap, having two adjacent chambers communicating by an opening in a separating partition at the forward, or entrance end of the trap, a floor pivoted and weighted in one chamber and having a gate normally standing above the entrance opening, the floor being normally above the opening in the partition, and a trigger-bar pivoted at one end to the lower face of the floor forward of its pivotal point, said bar having a shoulder to engage a transverse rib and support the floor, a tripping-bar having an eye or loop to loosely receive a prolongation of the tripping-bar, a tripping-plate arranged above the floor and rigid with the tripping-bar, said tripping-bar being pivoted between lugs dropped from the floor, substantially as described. 4th. In a rat-trap, the combination with two adjacent chambers of a floor pivoted in one and having a gate normally lying above an entrance opening, a trigger-bar, a tripping-bar and plate, the bar being loosely connected to the trigger-bar, and the tripping-plate being operated by the weight of the rat to trip the trigger-bar, drop the floor, close the entrance and disclose an opening in the partition between the chambers, a trap-hole being provided in the adjacent chamber and pivoted, normally closed floor for said trap hole, substantially as described.

No. 53,851. Egg Boiler. (*Bouilloire pour les œufs.*)



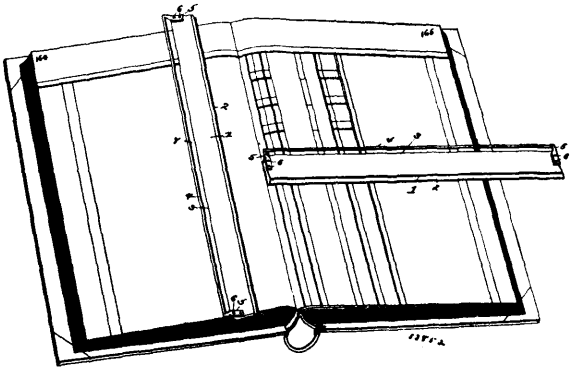
William Stiefelhagen and Frank A. Habeler, both of Buffalo, New York, U.S.A., 22nd October, 1896; 6 years. (Filed 30th June, 1896.)

Claim.—An egg-boiler consisting of a metallic vessel provided with a dome-shaped cover having the usual annular flange to retain the cover in the mouth of the vessel and provided with an inner flaring annular flange extending down into the vessel, a musical instrument located in the apex of the dome of the cover and a removable knob or handle surrounding the musical instrument and provided with side and top outlets for the escape of the steam and the sound of the musical instrument, as and for the purpose stated.

No. 53,852. Rule. (*Règle.*)

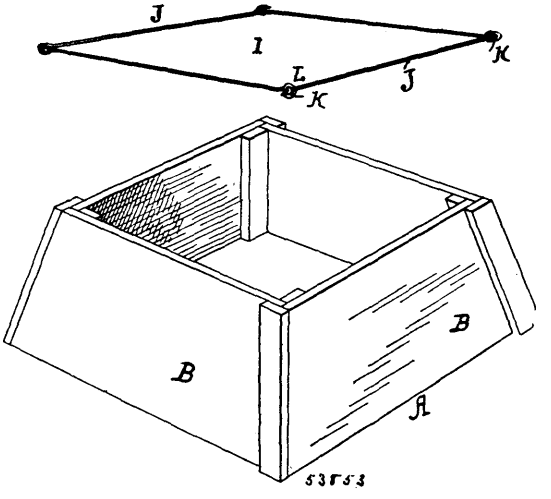
John Daniel Maier, jr., Wilmington, Delaware, U.S.A., 22nd October, 1896; 6 years. (Filed 1st August, 1896.)

Claim.—1st. The combination of the rule 1, having a straight edge 3, with an auxiliary straight edge 4, arranged parallel with and adjacent to said edge 3, and adapted to guide a pen or pencil upon either side, as and for the purposes set forth. 2nd. In combination with a rule having a straight edge, an auxiliary straight



edge secured adjacent to said rule whereby the distance between the edge of said rule and the auxiliary edge may be varied, as and for the purposes set forth.

No. 53,853. Plant Protector. (*Protecteur de plante.*)



George Williams, Royal Oak, Michigan, U.S.A., 22nd October, 1896; 6 years. (Filed 8th September, 1896.)

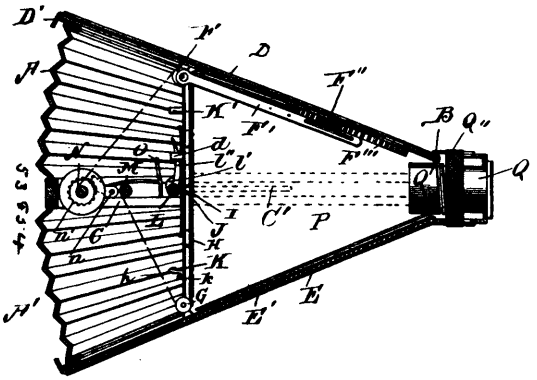
Claim.—1st. A plant protector consisting of a box formed of separate side sections adapted to be placed together, each section having an angle groove formed at its end adapted to receive the end of an adjacent section and a securing hoop formed of detachable jointed sections corresponding to the side sections of the box, substantially as described. 2nd. A plant protector consisting of a box formed of separate side sections adapted to be placed together around the plant, each section having its ends inclined inwardly from bottom to top, an angle groove formed at the end of one section adapted to receive the end of the adjacent section and a securing hoop formed of detachable, jointed sections corresponding to the side sections of the box, substantially as described.

No. 53,854. Photographic Camera. (*Caméra.*)

Stern Manufacturing Company, assignee of Philip K. Stern, St. Louis, Missouri, U.S.A., 22nd October, 1896; 6 years. (Filed 18th August, 1896.)

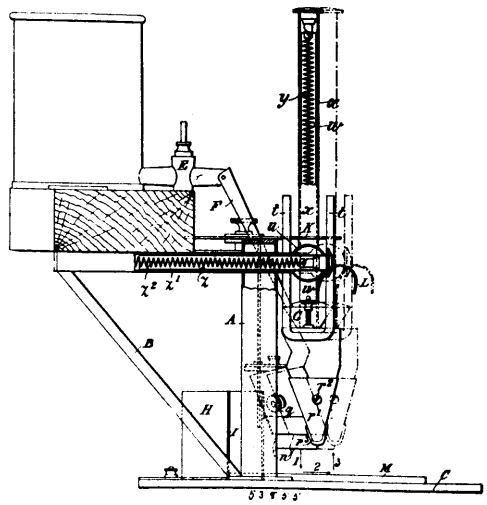
Claim.—1st. A camera box, comprising a lens plate, folding frames hinged to said lens plate, flexible walls arranged between the sides and back of said frames, and a hinged brace for said frames in the form of a platen or partition which divides the box into compartments, substantially as described. 2nd. The combination with the lens plate, of hinged frames mounted thereon, flexible walls between the sides and rear ends of said frames, and a hinged brace mounted within the box and on the frames in such manner that it forms a platen for the film which is adapted to transverse its face, substantially as described. 3rk. The combination with the lens plate, of hinged frames mounted thereon, flexible walls at the sides and back of the hinged frames, and a partition or platen which braces said hinged frames and divides the box into two compartments, the front containing the film to be exposed and the rear the unexposed and exposed films, substantially as described. 4th. The combination with the lens plate, of folding frames hinged thereto and which fold upon the optical axis of the lens, flexible walls between the sides and back of said folding frames, and a hinged sectional platen in the

form of a brace which is pivotally secured to the folding frames with the box in front of the rear flexible wall, substantially as des-



cribed. 5th. The combination with the lense plate, of a rigid frame extending rearwardly therefrom, folding frames hinged to the lens plate, flexible walls between the folding frames and rigid frame, rollers mounted in the rigid frame for the film, and a brace within the box and between the folding frames, said brace being located in front of the film rollers and acting as a platen for the film, substantially as described. 6th. The combination with the lens plate, of a rigid frame extending rearwardly therefrom, folding frames hinged to the lens plate, flexible walls between the folding frames and rigid frames, rollers mounted in the rigid frame for the film, and a brace within the box and between the folding frames, said brace being hinged at its middle, the pivoted rod thereof extending laterally into guiding slots in the rigid frame, and a pivotal connection between the ends of the brace and the folding frames, substantially as described. 7th. A camera, comprising a lens box, a frame extending rearwardly therefrom, folding frames hinged to the lens box, bellows arranged betweeu the several frames, a sectional platen which is hinged to the swinging frames, the sections of said platen being hinged together, and a rod at the platen hinge which works in a recess in the stationary frame to guide the platen in its movement, substantially as described. 8th. The combination with a lens plate, of a rigid frame extending rearwardly therefrom, sections hinged to said lens plate and folding upon said frame, a hinged platen mounted on the folding frame, a lock on the platen sections for securing them in a closed position, and a sectional rod mounted in the rearwardly-extending frame for releasing the lock, said rod being also adapted to lock the platen in its proper position, substantially as described. 9th. A camera, comprising folding sections, a sectional platen which is operated by said sections, a lock on the sections of the platen, and a controlling rod for said lock, which rod passes transversely the camera, substantially as described. 10th. The combination with folding sections, of a hinged platen, a lock on the platen for securing the sections in a closed position, a sectional rod for releasing the lock, said rod locking the platen in its open position, substantially as described. 11th. The combination with a folding platen, of a lock for the same, a rod for releasing the lock to permit the platen to open, said rod having a projection, which locks the platen in an open position, substantially as described. 12th. The combination with a folding platen, of a lock for the securing the same in the folded position, a rod comprising a male and female section operatively connected together by a slot and pin connection, a nose on the male section for unlocking the platen lock, and a projection on the female section for breaking the joint in the open platen, substantially as described. 13th. The combination with the guide rollers, of a platen hinged to the axles thereof, substantially as described. 14th. The combination with guide rollers, of a platen hinged to the axles thereof, and rollers mounted in juxtaposition to the platen whereby the film on said rollers passes entirely around the platen, substantially as described. 15th. The combination with folding frames, of bellows between, guide rollers mounted in the frame, and a platen hinged to the axles of the guide rollers, substantially as described. 16th. A photographic camera, consisting of a collapsible envelope or casing for the sensitized material, a lens located at one extremity of said envelope for throwing the image on said sensitized material, a transverse reciprocating shutter for controlling the light which passes through the lens, a platen or backing for the sensitized material which platen is adapted to fold within the envelope, and rollers for the sensitized material located behind the platen, substantially as described. 17th. A photographic camera, having a lens, folding frames hinged thereto, a folding partition or platen between the frames, guide rollers mounted in the frames, to which said platen is hinged, said platen being also hinged at its middle, and film carrying rollers behind the hinged platen, substantially as described. 18th. The combination with the lens plate, of a rigid frame extending rearwardly therefrom, folding frames hinged to the lens plate and adapted to fold on each side of the rigid frame, a partition hinged to the folding frames, and spools for the film mounted in the rigid frame behind the partition, substantially as described. 19th. A photographic camera consisting of a lens and lens plate, a shutter for the lens, frames hinged to lens plate, a platen forming a film support hinged to the frames, means between the frames for excluding light, the said frames being adapted to fold equiangularly upon the optical axis of lens, whereby the platen is caused to assume an angular position relative to the optical axis of the lens, and means for traversing predetermined lengths of film successively across the platen, substantially as described. 20th. The combination with the lens plate, of a rigid frame extending rearwardly therefrom, folding frames hinged to the lens plate and adapted to fold on each side of the rigid frame, a partition or platen hinged to the folding frames, accordion-plaited bellows arranged between the folding frames and rigid frame, and a supplemental flexible wall secured to the hinged platen and folding frames, substantially as described. 21st. The combination with the lens plate, of folding frames hinged thereto, bellows arranged between the said frames, a partition hinged to the folding frames, film rollers located behind the partition, the film being extending in front of the partition, and a supplemental casing for the front compartment, substantially as described. 22nd. The combination with a lens tube, of a reciprocating shutter, a spring for normally holding said shutter in a closed position across the lens tube, and a spring actuated arm for engaging and forcing the shutter open against its spring, said shutter being closed by the shutter spring, substantially as described. 23rd. The combination with a lens-tube, of a reciprocating shutter, a spring for nominally holding said shutter in a closed position across the lens-tube, a spring-actuated swinging arm for engaging and forcing the shutter open against its spring, said shutter being closed by the shutter-spring, a lever for setting the swinging arm in an operative position, and a trigger for said arm, substantially as described. 24th. The combination with the lens-tube, of a spring-pressed shutter, a spring-pressed swinging arm provided with a dog on its end, which is adapted to engage the shutter and force it against the tension of its spring in one direction, the shutter-spring returning the shutter in the opposite direction, a trigger for releasing the swinging arm, a cooking lever for setting the swinging arm, and a diaphragm which is adjustable longitudinally the axis of the shutter, substantially as described. 25th. In a photographic camera, the combination with a collapsible envelope or casing, of a suitable framework therefor, a lens located at one extremity of said envelope, a shutter for the lens, a platen or backing for the sensitized material, which is adapted to fold within the envelope, guide-rollers mounted in the framework over which said sensitized material passes, and rollers for the sensitized material arranged behind the platen, substantially as described. 26th. The combination with the lens-tube, of a reciprocating shutter, yielding means for normally holding said shutter in a closed position across the lens-tube, a projection on the shutter, a swinging arm having a latch connection with said projection, and means for swinging said arm and setting it in an operative position, whereby, when the arm is tripped or released, it forces the shutter in one direction, the arm escaping from the shutter projection when the shutter has effected an opening of the lens-tube, said arm then permitting the shutter to return to a closed position, the resetting of the swinging arm causing it to latch the shutter projection ready for another operation, substantially as described.

No. 53,855. Machine for Applying Adhesive Material to Envelopes and other Articles of Stationery. (*Machine pour appliquer des matières adhésives aux enveloppes, etc.*)

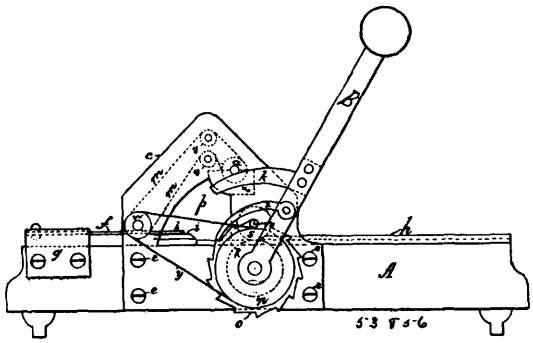


Caroline Newman Bintcliffe and John Walker, both of London, England, 22nd October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. In a gumming machine, a gum vessel with elongated outlet at bottom and moving first downward upon the article to be

gummed, then horizontally along said article, then upward and finally back to its first position, substantially as and for the purpose set forth. 2nd. A gum vessel having an adjustable elongated outlet at bottom and felt-covered lips at said outlet, substantially as and for the purpose set forth. 3rd. In a gumming machine, the combination with a work table, of gauges on said table regulating the position on the table of the article to be gummed, and a gum vessel having an outlet at bottom and moving first downward upon the article on the table, then horizontally along said article, then upward clear of said article and finally back to its first position, substantially as and for the purpose set forth.

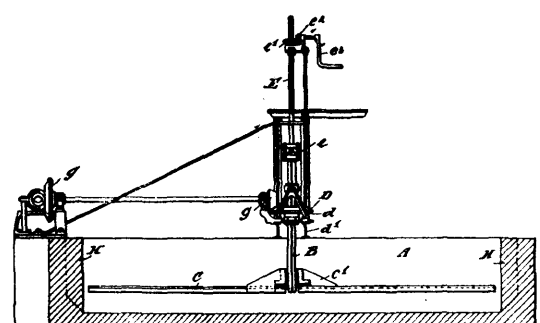
No. 53,856. Machine for Affixing Postage Stamps to Letters, Circulars, etc. (*Machine pour coller les timbres-poste aux lettres, etc.*)



George H. Cove, Truro, Nova Scotia, 22nd October, 1896; 6 years. (Filed 8th September, 1896.)

Claim.—1st. A letter stamping machine comprising feed rolls for moving the stamps to the proper position, and a system of belts and pulleys with a sponge box for the purpose of imparting and conveying moisture to and assisting in placing the paper to be stamped in the proper position to receive the stamp, together with a shear pad and pressure foot for the purpose of affixing the stamp, the whole operated by a lever, substantially as and for the purpose hereinbefore described. 2nd. In a letter stamping machine the combination of the lever B, the belt pulley *n*, the ratchet wheel *o*, the pawl *z*, and the pressure foot *k*, with the feed rolls R and *s*, the stamp guide *h*, the housings *c c*, and the frame or base A, substantially as and for the purpose hereinbefore set forth. 3rd. In a letter stamping machine, the combination of a lever, a ratchet wheel and pawl, with the belt wheel *n*, the belt *y*, the belt pulley *w*, the pulley v^1, the pulleys *v v* and *a*, the cotton belt *m m*, the sponge box *t*, and the housings *c c*, substantially as and for the purpose hereinbefore set forth and described. 4th. In a letter stamping machine, the combination of a ratchet wheel and pawl, and a lever, with the pressure foot *k*, the spring *f f*, the steel shear pad *i* and the envelope guide *g*, substantially as and for the purpose hereinbefore set forth. 5th. A letter stamping machine comprising a lever, a ratchet wheel and pawl, in combination with the feed rolls *r* and *s*, the stamp guide *h*, the belt wheel *n*, the belt *y*, the belt pulley *w*, the pulleys v^1, *v v* and *a*, the cotton belt *m m*, the sponge box *t*, the pressure foot *k*, the shear pad *i*, the spring *f f*, the envelope guide *g*, and the housings *c c*, all supported on the frame or base A, substantially as and for the purpose hereinbefore set forth.

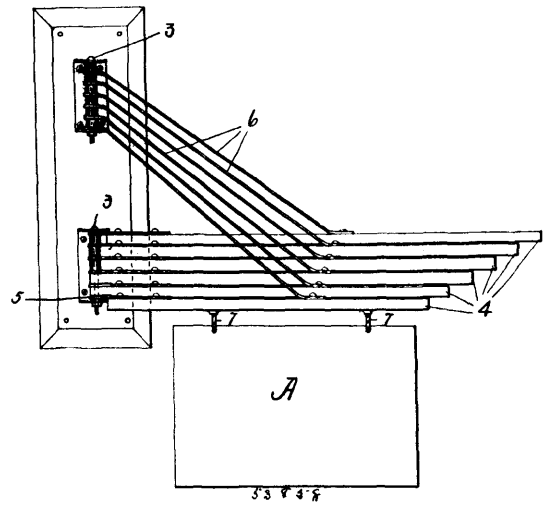
No. 53,857. Combination Tool. (*Outil à combinaison.*)



Frederick George Fauquier, Nakusp, British Columbia, 22nd October, 1896; 6 years. (Filed 9th September, 1896.)

Claim.—1st. The combination with the blade 3 having an eye and a threaded socket on the side opposite to the said blade, of a hammer head, ax or other tool, having a threaded shank adapted to be screwed into the said threaded socket, substantially as set forth. 2nd. The combination in a miner's or prospector's pick having one of its blades interchangeable, with the threaded socket 5 of the threaded shank 6 formed on one of the interchangeable blades, the square shoulder 8, flat portion 11 formed on the threaded shank, and the set screw 10, substantially as set forth.

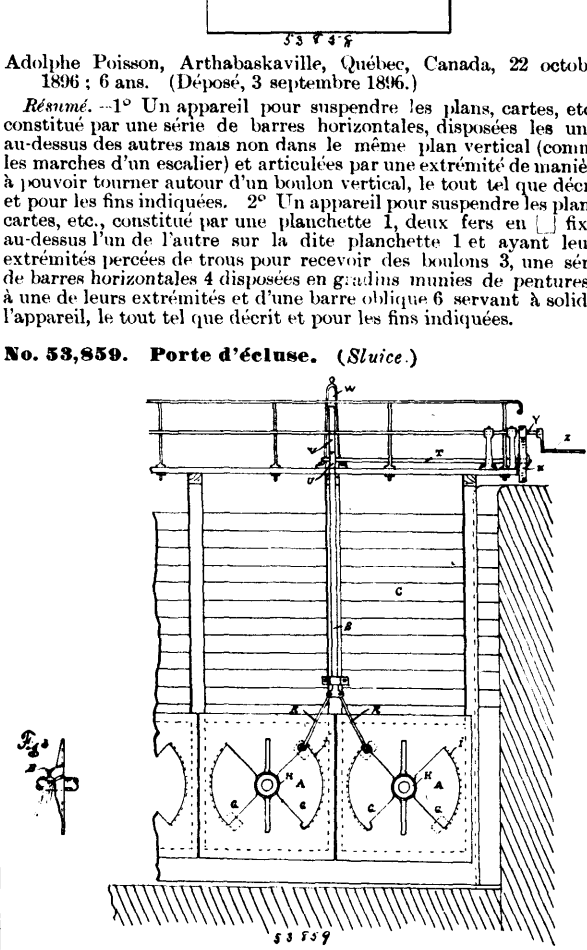
No. 53,858. Appareil pour suspendre les plans, cartes, etc. (*Apparatus for suspending plans, cards, etc.*)



Adolphe Poisson, Arthabaskaville, Québec, Canada, 22 octobre 1896; 6 ans. (Déposé, 3 septembre 1896.)

Résumé.—1° Un appareil pour suspendre les plans, cartes, etc., constitué par une série de barres horizontales, disposées les unes au-dessus des autres mais non dans le même plan vertical (comme les marches d'un escalier) et articulées par une extrémité de manière à pouvoir tourner autour d'un boulon vertical, le tout tel que décrit et pour les fins indiquées. 2° Un appareil pour suspendre les plans, cartes, etc., constitué par une planchette 1, deux fers en [ ] fixés au-dessus l'un de l'autre sur la dite planchette 1 et ayant leurs extrémités percées de trous pour recevoir des boulons 3, une série de barres horizontales 4 disposées en gradins munies de pentures 5 à une de leurs extrémités et d'une barre oblique 6 servant à solider l'appareil, le tout tel que décrit et pour les fins indiquées.

No. 53,859. Porte d'écluse. (*Sluice.*)

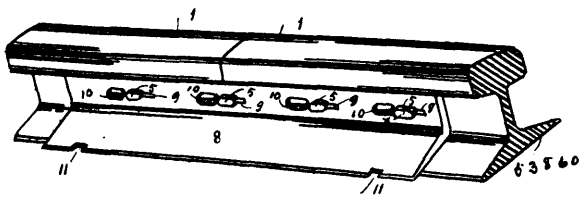


Eugène S. Manny, Montréal, Québec, Canada, 22 octobre 1896; 6 ans. (Déposé, 8 septembre 1896.)

Résumé.—1° Dans une porte d'écluse, une série de vannes semi-rotatives A A formées de deux ou trois tranches chacune rayonnant du centre à la circonférence et ayant entre elles un espace égal à la surface de chaque tranche tel que décrit. 2° Dans une porte d'écluse, la combinaison de la vanne A avec les pièces correspondantes E F, à l'aide des coussinets K L, tel que décrit. 3° Dans une porte d'écluse, la combinaison de la vanne semi-rotative A avec son essieu J et le point d'appui ajustable à l'aide des pièces N et O et la vis P, tel que décrit. 4° Dans une porte d'écluse, la combi-

naison des vannes semi-rotatives A avec les bouches courbées B B, tel que décrit. 5° Dans une porte d'écluse, la combinaison des tiges verticales R R et S avec les vannes A et l'arbre de couche T à l'aide des engrenages U et V, et le système de cabestan X Y Z, tel que décrit et pour les fins indiquées.

No. 53,860. Rail Joint. (*Joint de rails.*)

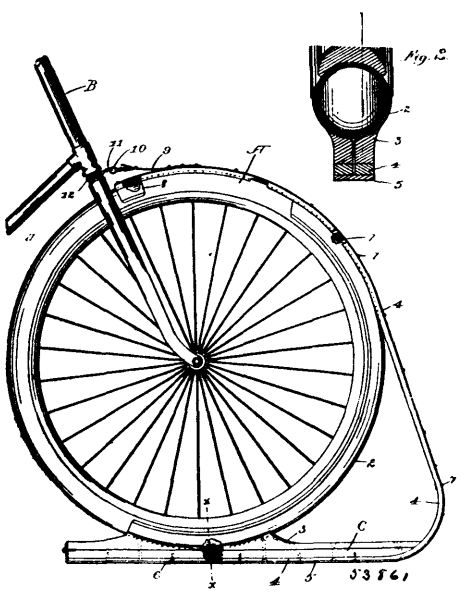


James Milton Halfpenny, Swengell, and Abraham E. Grove, Millmount, both in Pennsylvania, U.S.A., 22nd October, 1896; 6 years. (Filed 28th September, 1896.)

Claim.—In a splice for railway rails, the combination, with the rails provided at the meeting ends with openings, of a key-plate disposed at one side of said rails, a series of regularly-spaced locking-keys formed at one side of said key-plate and adapted to pass into and extend through the openings in the meeting ends of the rails, each of said keys successively diminishing in length throughout the entire series and provided at its upper and lower sides with aligned grooves, a locking-plate arranged at the side of the rails opposite to the key-plate and provided with a series of elongated slots each of which has one of its ends enlarged to form an eye, said locking-plate gradually diminishing in thickness throughout its entire length to form a wedge, the thickest end thereof lying adjacent to the longest locking-key, said elongated slots of the locking-plate being adapted to receive the locking-keys when the latter are passed through the eyes thereby wedging the locking-plate upon the keys, and means for holding the locking-plate in its wedged position, substantially as set forth.

No. 53,861. Runners for Bicycle Wheels.

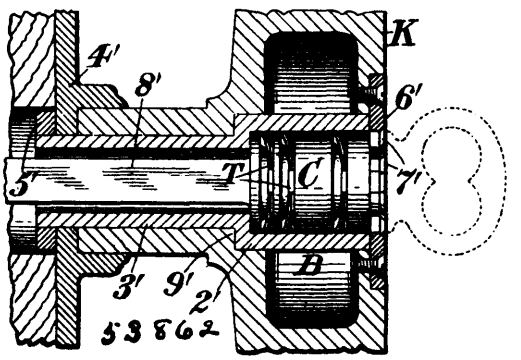
(*Patin pour roues de bicycles.*)



Charles Delancy Chatterton, St. Paul, Minnesota, U.S.A., 22nd October, 1896; 6 years. (Filed 18th September, 1896.)

Claim.—1st. The combination with a bicycle-wheel, of the rim fitted thereto and held in place by the resiliency of the tire, and the runner attached to said rim. 2nd. The combination with a bicycle-wheel, of the runner fitted to the tire thereof, and with its ends projecting to the rear of the bottom of the wheel, and the top of the wheel respectively, so as to be held in place by its own gripping action. 3rd. In combination with a bicycle, a skate or runner therefor upon which the tire is seated and held in place by the resiliency thereof. 4th. The combination with a bicycle-wheel, of the runner, the rim rigidly connected to said runner, adapted to be fitted to the tire, and held in place by the resiliency thereof, and the means connecting the runner and bicycle-frame to prevent turning of the wheel.

No. 53,862. Lock. (*Serrure.*)

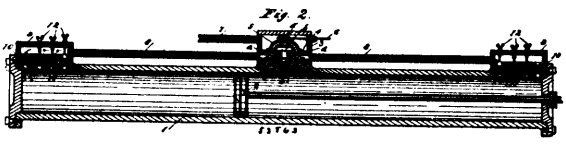


Henry Dwight Hinckley, Hartford, Connecticut, U.S.A., 22nd October, 1896; 6 years. (Filed 26th September, 1896.)

Claim.—1st. In a lock of the class specified, the combination with a suitable casing, of a bolt-actuator supported for rotation in said casing and having a key-centering and guiding support extending its entire length, and one or more actuator-locking tumblers partially surrounding the tumbler-actuator and held as against rotative movement. 2nd. In a lock of the class specified, the combination with a suitable casing, of a rotative bolt-actuator having one or more radial keyways extending its entire length, each of which is wholy located between the periphery and the axis of the actuator, and a non-rotative tumbler supported in said casing in concentric relation with the actuator. 3rd. In a lock of the class specified, the combination with a suitable casing, of a bolt-actuator supported for rotation in said casing and having a peripheral guideway in concentric relation with the axis thereof, and also having a longitudinal keyway extending its entire length, which intersects the guideway and which extends widthwise from the periphery of the actuator to, and terminates at, a point between said periphery and the axis of said actuator, and a tumbler located in said guideway and held as against rotative movement. 4th. The herein described bolt-actuator for locks of the class specified, it consisting of a rotative member having a series of relatively remote parallel guideways formed in the periphery concentric to the axis thereof, and also having substantially midway of its diameter a key-centering and guiding support extending the entire length of said actuator. 5th. The herein described bolt-actuator for locks of the class specified, it consisting of a substantially cylindrical member having a series of circumferential tumbler-guides and two radial keyways open at their outer edges to and intersecting the guideways, said keyways extending the entire length of said cylindrical member, and also having a key-centering and guiding support located between and separating the inner adjacent ends of the keyways. 6th. In a lock of the class specified, the combination with a casing and with a bolt-actuator rotatively mounted in said casing, of a key-actuated locking-detent supported on the casing for movement toward and away from the axis of the actuator and adapted for locking said actuator relatively to the casing. 7th. In a lock of the class specified, a casing, a cylindrical bolt-actuator rotatively supported in said casing and having a radially-disposed keyway open at its outer edge to the periphery and terminating at its inner edge near the axis of the actuator to form a supporting and key-centering guide, and also having a part-circular peripheral guide-groove which communicates with the keyway and is concentric to the axis of the actuator, and an actuator locking tumbler supported for transverse movement with respect to, and held as against longitudinal movement in, the guide-groove, and adapted for engaging the side walls of the keyway to lock the bolt against rotation. 8th. In a lock, the combination of a suitable casing, a longitudinally and circumferentially grooved bolt-actuatar rotatively supported in said casing and having a substantially central key-centering and guiding support extending its entire length adapted for holding a key against transverse movement relatively to said actuator, and a tumbler supported in the circumferential groove of the actuator. 9th. In a lock, a suitable casing, a longitudinally and circumferentially grooved bolt-actuator rotatively supported in said casing and having a substantially central key-centering and guiding support extending its entire length adapted for holding a key against transverse movement relatively to said actuator, and a tumbler supported in the circumferential groove of the actuator, combined with an actuator-rotating member removably supported in and closing the longitudinal groove of the actuator and having a groove for registering with the circumferential groove of the actuator to form a bridge over which the tumbler may ride during the rotation of the actuator, and also a face co-acting with the guiding support of said actuator, whereby said actuator-rotating member is held when its circumferential groove is in a precise position with respect to the circumferential groove in the actuator. 10th. In a lock of the class specified, the combination with the casing and with the bolt-actuator having a circumferential tumbler-receiving groove, of a tumbler supported in said groove for movement longitudinally of the actuator, and an independent tumbler supported between the actuator and the first-mentioned

tumbler for movement transversely of said actuator. 11th. The combination with a rotatively-supported bolt-actuator having a keyway, of a locking device normally engaging in said keyway in position to be actuated by an inserted key. 12th. In a lock of the class specified, the combination of a suitable casing, a bolt-actuator supported for rotation in said casing and having circumferential locker-guides, and also having a longitudinal keyway intersecting said locker-guides, a detent in normal engagement with and locking said bolt-actuator against rotation, actuator-locking tumblers circumferentially disposed about, and supported as against longitudinal movement in the guideways of, the bolt-actuator, and means for releasing the detent and for rotating the actuator. 13th. In a lock of the class specified, the combination with the casing and with the rotative bolt-actuator having a circumferential guideway, of two independent parti-circular tumblers supported one by the other and located in the circumferential guideway between the bolt-actuator and casing. 14th. In a lock of the class specified, the combination with a suitable casing, of a longitudinally and circumferentially grooved bolt-actuator supported for rotation in said casing, and having a longitudinal extension adapted for connecting with the bolt to be actuated, a series of resilient actuator-lockers supported in the circumferential groove of the actuator and held as against rotative movement, and having laterally-movable locking ends in position for engaging the walls of the longitudinal groove of the actuator, and a locking-detent fixed to the casing, and having means for engaging the bolt-actuator to lock the same at predetermined points in the rotative movement thereof. 15th. In a lock, the combination with a suitable casing and with a bolt-actuator supported for rotation in said casing and having a suitable keyway therein, of a key-actuator rotatively supported on said casing and having key-engaging devices located in advance of the outer end of the bolt actuator in position to engage a key. 16th. In a lock, the combination with a bolt-actuator having a longitudinal extension for connection with the bolt to be actuated and with the bolt-actuator casing, of a knob-like key-actuator rotatively supported on said casing and held as against longitudinal movement relatively to said casing, and means carried by said key-actuator for engaging the key when the same is inserted in the lock. 17th. In a lock, the combination with a rotative bolt-actuator having an extension for connection with the bolt to be actuated, and having keyways in the outer end thereof, a non-rotative casing surrounding said bolt-actuator, and holding the same against longitudinal movement, a key-actuator rotatively supported on and held as against longitudinal movement relatively to the bolt-actuator casing, and a guard-plate secured to said key-actuator, and having key-slots adapted to register with the keyways of the bolt-actuator. 18th. The combination with a rotative bolt-actuator, of a knob, a key, and means carried by the knob for engaging said key. 19th. The combination with a knob, of a bolt-actuator casing on which said knob is normally free to rotate, a bolt-actuator within said casing, and means carried by the knob for engaging an inserted key. 20th. A lock-tumbler comprising two segmental, resilient plates having their outer edges joined together substantially midway of their lengths by a U-shaped resilient connector which extends outward beyond said edges and is constructed to spread said plates relatively to each other. 21st. A lock-tumbler comprising two substantially duplicate segmental plates having their outer edges located in a common plane and having their extreme outer adjacent ends bowed outward in opposite directions, relatively, to form opposing locker-arms, and a connector joining the outer edges and extending outward beyond the outside edges of said plates and constructed to spread said plates relatively to each other.

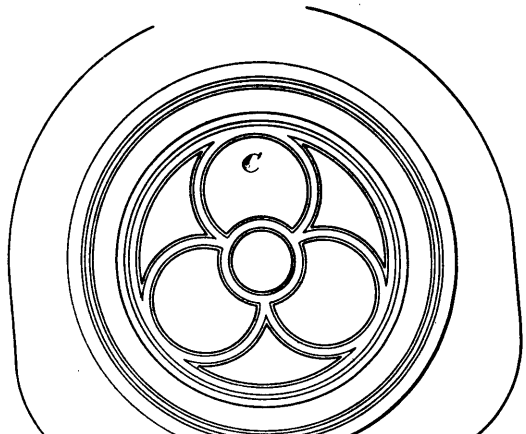
No. 53,863. Engine. (*Machine à vapeur.*)



Frederick O. Kilgore, Minneapolis, Minnesota, U.S.A., 23rd October, 1896; 6 years. (Filed 6th October, 1896.)

Claim.—1st. In an engine, the combination with a distribution valve and its seat, of ports in said valve and seat, so constructed and arranged that the valve may be first set to connect the two cylinder ports, for equalizing the pressures on both sides of the piston, and be then set to cage or confine the fluid within the cylinder, on both sides of the piston, for stopping the piston at any point of its travel, under a yielding or cushioned action, substantially as described. 2nd. In an engine, the combination with a valve-seat having the customary admission and exhaust ports, of a distribution valve on said seat, controllable at will, having, in addition to the ordinary exhaust cavity, a passage through the valve, adapted to connect the cylinder ports of the seat, in one position of the valve, whereby the said valve may be used to equalize the pressures on opposite sides of the piston and to cage the fluid within the cylinder on opposite or both sides of the piston, for stopping the piston, under a cushioned action, at any point of its travel, substantially as described. 3rd. In an engine, the combination with a distribution valve and its seat, of a series of valve controlled passages near the ends of the cylinder, in communication with the cylinder ports of the seat, the outermost members of which valve controlled passages permit the admission and any selected members of the inner valve controlled passages permit the exhaust, whereby the piston may be cushioned, to any desired extent in the final part of its stroke, substantially as described. 4th. In an engine, the combination with the distribution valve and its seat, of the check-valves in the passages from the said seat to the cylinder, the outer members of which open inward, for admission, and the inner members of which open outward, for exhaust, under the fluid pressure, substantially as and for the purpose set forth. 5th. In an engine, the combination with the distribution valve and its seat, of inwardly opening check-valves in the passages to the cylinder, located at the outer ends thereof, a series of outerwardly opening check-valves in said passages, located inward of said inwardly opening check-valves, and devices for locking any desired number of said outwardly opening check-valves in their closed positions, substantially as and for the purposes set forth. 6th. In an engine, the combination with a distribution valve and its seat, of ports in said valve and seat, so constructed and arranged that the valve may be first set to connect the two cylinder ports, for equalizing the pressures, on opposite sides of the piston, and be then set to confine or cage the fluid within the cylinder, and a series of valve controlled passages, near the ends of the cylinder, in communication with the cylinder ports of the seat, the outermost members of which permit the admission, and any selected inward members of which permit the exhaust, substantially as and for the purposes set forth. 7th. In an engine, the combination with the valve-seat having the customary admission and exhaust port, of the distribution valve on said seat, controllable at will, having, in addition to the ordinary exhaust cavity, a passage through the valve, for the purposes described, the series of check-valves in the passages to the cylinder, the outermost members of which open inward, for admission, and the inner members of which open outward, for exhaust, and locking devices applicable to said exhaust check-valves, all for co-operation, substantially as described.

No. 53,864. Chair Seat. (*Siège de chaise.*)



Hartman Krug, Berlin, Ontario, Canada, 23rd October, 1886; 6 years. (Filed 7th October, 1896.)

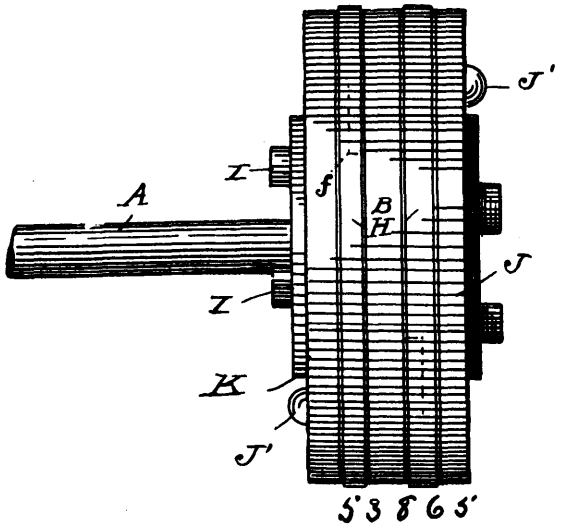
Claim.—1st. A seat for chairs, composed of one or more sheets of veneer to which is cemented a thin sheet of leather, substantially as and for the purpose specified. 2nd. A seat for chairs, composed of a plurality of veneer sheets suitably glued together and dished, to which is cemented a thin sheet of embossed leather, substantially as and for the purpose specified. 3rd. A seat for chairs, composed of a plurality of veneered sheets suitably glued together and dished, to which is cemented on the outer surface a thin sheet of embossed leather and on the lower surface a sheet of brown paper, substantially as and for the purpose specified.

No. 53,865. Piston Head. (*Tête de piston.*)

Matt F. Ross, Windfall, Indiana, U.S.A., 23rd October, 1896; 6 years. (Filed 7th October, 1896.)

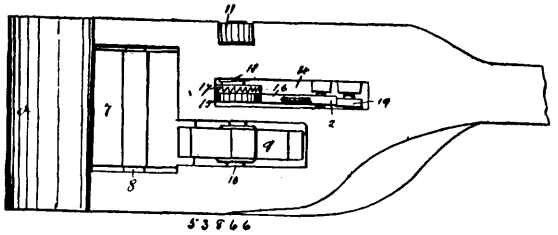
Claim.—1st. In a piston head, the combination of the rod and the ring seat, the ring and the pins having tapered portions engaging said rings to force them out through pressure of steam on the ends of said pins which extend through the follower plate, and the springs acting on said pins, substantially as shown and described. 2nd. In a piston head, the combination of the rod and the ring seat, the rings and the pins having tapered portions engaging said rings to force them out through pressure of steam on the ends of said pins which extend through the follower plate, and the springs acting on said pins, said rings being made in sections. 3rd. In a piston, the combination of the ring seat, the piston rod secured thereto, the spider with tapered seats, the ring sections and the pins having wedge-

shaped inner ends, and springs acting on said pins, substantially as described. 4th. In a piston, the combination of the ring seat, the



piston rod secured thereto, the spider with tapered seats, the ring sections and the pins having wedge-shaped inner ends, and springs around the shanks of said pins, and the follow plates, substantially as described. 5th. In a piston, the combination of the ring seat, the piston rod secured thereto, the spider with tapered seats, the ring sections and the pins having wedge-shaped inner ends, and springs around the shanks of said pins, and the follower plates, having openings through which said pins extend, substantially as described. 6th. The combination with the ring seat and the plates upon opposite sides thereof having alternately-arranged tapered seats, of the rings in sections, with over-lapping halved-out ends and radial plates with slots and notches with inclined walls, the pins working in the said slots, and the pins having tapered inner ends seated against the inclined walls of the radial plates of the ring sections with their outer ends working loosely through openings in the follower plates and the springs around said pins, substantially as described.

No. 53,866. Car Coupler. (*Attelage de chars.*)



Joseph Rowat Fair and Winfield M. Perrin, assignees of Thomas Hermann Walsh, all of Montreal, Quebec, Canada, 23rd October, 1896; 6 years. (Filed 6th October, 1896.)

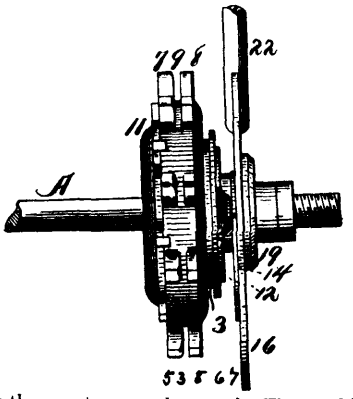
Claim.—1st. In a car coupler, a draw bar terminating in a head and a rotatable lug roll carried by same, and comprising a body portion or hub having radially extending teeth with enlarged outer ends, and means for controlling the rotation of said roll, for the purpose set forth. 2nd. In a car coupler, a draw bar terminating in a head and a rotatable lug roll carried by same with a rotary locking device held against motion longitudinally of its axis and capable of presenting a number of locking projections at various degrees of rotation for controlling the rotation thereof, for the purpose set forth. 3rd. In a car coupler, a draw bar terminating in a solid head and having an open space or chamber in rear thereof to contain engaging devices of rotatable lug-roll form, and a rotary locking device held against motion longitudinally of its axis and capable of presenting a number of locking projections at various degrees of rotation, for the purpose set forth. 4th. In a car coupler, draw bars terminating in a head and an arm, the head and arm of each forming a recess between them to receive the head of the opposite draw bar and the head portion of each containing an engaging device in the form of a revoluble lug roll, the lugs of which are adapted to intermesh, a rotary locking device or gear, held against motion longitudinally of its axis and capable of pressenting a number of locking projections at various degrees of rotation, in each head portion for locking such lug rolls against rotation in a direction tending to their uncoupling, and means for controlling the movement of such rotary locking device for the purpose set forth. 5th. In a car coupler, a draw bar terminating in a head and an arm, the head and arm of each forming a recess between them to receive the head of the opposite draw bar, and the head portion of each having a main chamber or open space and rearwardly extending horizontal open spaces leading therefrom, an engaging device in the form of a revoluble lug roll pivoted vertically in said main chamber, a vertical spindle passing through the head and each of said rearwardly extending open spaces, a gear wheel mounted on said spindle within one of said spaces and intermeshing with the lug roll, a ratchet carried by said spindle and a pawl normally engaging the same to prevent any rotation thereof and of the spindle gear and lug roll in a direction tending to the uncoupling of the lug rolls with means for disengaging said pawl from the ratchet for the purpose set forth. 6th. In a car coupler, a draw bar terminating in a head and an arm, the head and arm of each forming a recess between them to receive the head of the opposite draw bar and the head portion of each having a main chamber or open space and rearwardly extending horizontal open spaces leading therefrom, an engaging device in the form of a revoluble lug roll pivoted vertically in said main chamber, a vertical spindle passing through the head and each of said rearwardly extending open spaces, a gear wheel mounted on said spindle within one of said spaces and intermeshing with the lug roll, a ratchet carried by said spindle and a pawl mounted on a second vertical spindle engaging the same to prevent any rotation thereof and of the spindle gear and lug roll in a direction tending to the uncoupling of the lug rolls, with a second ratchet loosely mounted on said spindle within the other rearwardly extending space, a clutch device splined on the spindle to engage the second ratchet, a pawl lever to operate said second ratchet and a lever arm carried by said second spindle and adapted to be operated by said pawl lever in one direction and a spring for moving it in an opposite direction, for the purpose set forth. 7th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in said head, a rotary locking device comprising a double gear wheel and a circular ratchet-toothed rack all formed integral with one another, the gear wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to engage said rotary engaging device, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug roll against rotation in a direction tending to the uncoupling of the lug rolls. 8th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in said head, a rotary locking device comprising a double gear-wheel and a circular ratchet-toothed rack, all formed integral with one another, the gear-wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to engage said rotary engaging device, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug roll against rotation in a direction tending to the uncoupling of the lug rolls, and means for disengaging said pawl from said rack, for the purpose set forth. 9th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in said head, a rotary locking device comprising a double gear-wheel and a circular ratchet-tooth rack all formed integral with one another, the gear-wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to engage said rotary engaging device, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug roll against rotation in a direction tending to the uncoupling of the lug rolls, means for disengaging said pawl from said rack, and means for automatically causing the engagement of said pawl and said rack, for the purpose set forth. 10th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in said head, a rotary locking device comprising a double gear-wheel and a circular ratchet-toothed rack all formed integral with one another, the gear-wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to engage said rotary engaging device, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug roll against rotation in a direction tending to the uncoupling of the lug rolls, horizontally ratchet-toothed sections formed integral with the upper surface of said double-gear, a vertically movable clutch block adapted to engage and be held yieldingly in engagement with said horizontal ratchet teeth, means for holding said clutch block yieldingly in engagement with said ratchet teeth, ratchet teeth formed upon the periphery of said clutch block, a pawl adapted to engage the said last-mentioned ratchet teeth, an elongated hub section taking loosely over a spindle mounted in the head, said hub being formed integral with said last-mentioned pawl, an arm formed integral with said hub section and extending laterally in the direction of and adapted to engage said last-mentioned pawl, for the purpose set forth. 11th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in said head, and consisting of a double lug-roll with a space between the lug-roll sections thereof, said space being maintained by means of a hub section connecting said lug-roll sections together, a rotary locking device comprising a double gear-wheel and a circular ratchet-toothed rack, all formed integral with one another, the gear-wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to intermesh with said double lug roll, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet.

toothed rack to retain said gear and lug roll against rotation in a direction tending to the uncoupling of the lug rolls. 12th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in a chamber in said head and consisting of a double lug roll with a space between the lug-roll sections thereof, said space being maintained by means of a hub section connecting said lug-roll sections together, a rotary locking device comprising a double gear-wheel and a circular ratchet-toothed rack, all formed integral with one another, the gear-wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to intermesh with said double lug-roll, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug-roll against rotation in a direction tending to the uncoupling of the lug-rolls, and means for disengaging said pawl from said rack, for the purpose set forth. 13th. In a car coupler, a draw bar terminating in a head, a rotary engaging device consisting of a double lug-roll with a space between the lug-roll sections thereof, said space being maintained by means of a hub section connecting said lug-roll sections together, rotatably mounted in said head, a rotary locking device comprising a double gear wheel and a circular ratchet-toothed rack all formed integral with one another, the gear wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to intermesh with said double lug-roll, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug-roll against rotation in a direction tending to the uncoupling of the lug rolls, means for disengaging said pawl from said rack and means for automatically causing the engagement of said pawl and said rack, for the purpose set forth. 14th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in a chamber in said head and consisting of a double lug roll with a space between the lug-roll sections thereof, said space being maintained by means of a hub section connecting said lug-roll sections together, a horizontal brace extending inside of said chamber from the nose of said head rearwardly to a point midway of the length of said head, said brace being accommodated by the space between said lug-roll sections, a rotary locking device comprising a double gear wheel and a circular ratchet-toothed rack, all formed integral with one another, the gear wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to intermesh with said double lug roll, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug-roll against rotation in a direction tending to the uncoupling of the lug-rolls, and means for disengaging said pawl from said rack, for the purpose set forth. 15th. In a car coupler, a draw bar terminating in a head, a rotary engaging device rotatably mounted in said head, and consisting of a double lug-roll with a space between the lug-roll sections thereof, said space being maintained by means of a hub section connecting said lug-roll sections together, a rotary locking device comprising a double gear wheel and a circular ratchet-toothed rack, all formed integral with one another, the gear wheel sections corresponding with one another and being located one on either side of said ratchet-toothed rack and adapted to intermesh with said double lug roll, a pawl fulcrumed in the head of the coupler and adapted to be held normally in engagement with said ratchet-toothed rack to retain said gear and lug roll against rotation in a direction tending to the uncoupling of the lug rolls, a horizontally ratchet-toothed section formed integral with the upper surface of said double gear, a vertically movable clutch block adapted to engage and be held yieldingly in engagement with said horizontal ratchet teeth, means for holding said clutch block yieldingly in engagement with said ratchet teeth, ratchet teeth formed upon the periphery of said clutch block, a pawl adapted to engage the said last-mentioned ratchet teeth, an elongated hub section taking loosely over a spindle mounted in the head, said hub being formed integral with said last-mentioned pawl, an arm formed integral with said hub section and extending laterally in the direction of and adapted to engage said last-mentioned pawl, for the purpose set forth.

No. 53,867. Speed Mechanism. (*Mécanisme de vitesse.*)

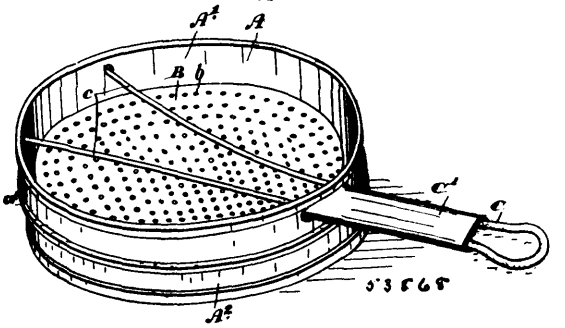
Harry DeLyne Weed and Francis Webster Gridley, both of Syracuse, New York, U.S.A., 23rd October, 1896; 6 years. (Filed 5th October, 1896.)

Claim.—1st. The combination with a wheel and an axle upon which it revolves, of a lesser sprocket secured to said hub and always concentric with said axle, and a greater sprocket detachably connected to said lesser sprocket and in one position concentric therewith, and means to shift said greater sprocket into a position detached from and eccentric to said lesser sprocket, whereby the power is applied directly to the latter to drive the wheel. 2nd. The combination with a wheel and an axle upon which it revolves, of two sprockets of unequal size detachably connected together, and means to disconnect them and shift the greater sprocket eccentrically to bring a part of its teeth into alignment with those of the lesser sprocket, which is secured to said wheel. 3rd. The combination with a wheel and its axle upon which it revolves, of two sprockets of unequal size detachably connected together, and means to disconnect them and shift the greater sprocket eccentrically to bring part of its teeth into alignment with those of the lesser sprocket, so that the teeth of the lesser sprocket enter the links of the chain as



it is guided by the greater sprocket. 4th. The combination with a wheel, of a lesser sprocket secured to its hub, a greater sprocket detachably connected to the lesser sprocket, and an eccentric rotatably mounted and upon which the greater sprocket is rotatably mounted and means to rotate said eccentric to bring the teeth of said sprockets into or out of alignment to engage doubly or singly with a chain. 5th. The combination with a wheel, of a lesser sprocket secured to its hub, a greater sprocket detachably connected to a lesser sprocket, an axle, an inner eccentric secured thereon, a greater eccentric mounted upon said inner eccentric, said greater sprocket being rotatably mounted upon said outer eccentric, and means to rotate said eccentrics simultaneously to shift the greater sprocket to bring the teeth of the lesser sprocket into engagement with a sprocket chain, or to disengage it from the teeth of the lesser sprocket. 6th. The combination with two eccentrics, one within the other and eccentric to each other, of two sprockets of unequal size, the greater sprocket being mounted upon the greater eccentric, and the lesser sprocket being mounted upon a shaft and adapted to engage with the other when said sprockets are concentric, and to become disengaged from it when the greater eccentric is shifted by said eccentrics into a position eccentric to the lesser sprocket, whereby said shaft is driven at different speeds. 7th. The combination with two eccentrics, one within the other and eccentric to each other, of a slotted lever secured to each eccentric and a slide engaging with said levers, and means to reciprocate it to rotate said eccentrics in opposite directions, and shift the outer eccentric in a vertical line, whereby it is brought into a position either concentric with or eccentric to the shaft upon which the eccentrics are mounted.

No. 53,868. Toaster. (*Appareil à rôtie.*)



Archibald Fairgrieve, John W. Campbell and William Kirkpatrick McNaught, all of Toronto, Ontario, Canada, 23rd October, 1896; 6 years. (Filed 5th October, 1896.)

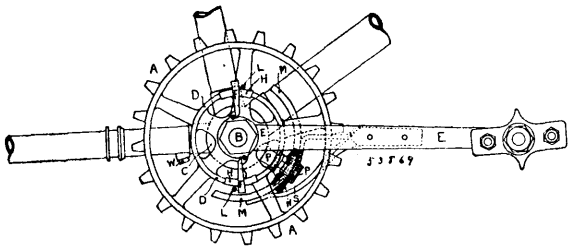
Claim.—1st. As a new article of manufacture in combination, the ring, the rest for the toast, a diaphragm formed of flat sheet metal and perforations in the same, as and for the purpose specified. 2nd. In combination the upper portion A, the rest support in such portion, the U-shaped lower edge a^1 of such portion, the diaphragm B provided with perforations and having the U-shaped edge b^1 fitting within the U-shaped edge of the upper portion A^1 and the lower portion A^2 having the upper outwardly turned lip fitting within the U-shaped inwardly turned edge of the diaphragm, as and for the purpose specified.

No. 53,869. Velocipede Driving Gear.
(*Mécanisme conducteur pour vélocipèdes.*)

Jacob Louis Löb, George Hornsby Barlow, both of Adelaide, and Adolph Wilhelm Robert Drabsch, Mannum, all in Australia, 23rd October, 1896; 6 years. (Filed 5th October, 1896.)

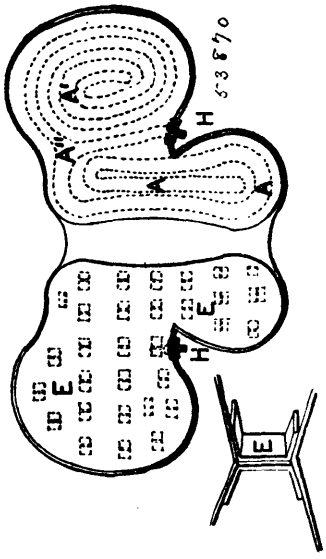
Claim.—1st. The method of propelling cycles or velocipedes by means of friction clutches actuated by pedal levers, substantially as

described. 2nd. In mechanism for the purpose described the combination with pedal levers having an up and down motion, of the



clutches such as FF and F^1F^1 and rings such as D and D^1, substantially as described. 3rd. In mechanism for the purpose described the combination with pedal levers having an up and down motion and operating clutches as described, of the quadrants M and M^1 and the level pinion N, as and for the purposes set forth. 4th. In gearing for cycles and velocipedes having operating clutches, rings, quadrants and level pinion as described, the use of such clutches in the manner described for the purpose of a brake. 5th. In cycles or velocipedes, the combination and arrangement of parts substantially as described and for the purposes set forth.

No. 53,870. Pneumatic Stuffing for Horse Collars, Carriages, etc. (*Garniture pneumatique pour colliers de cheval, voitures, etc.*)



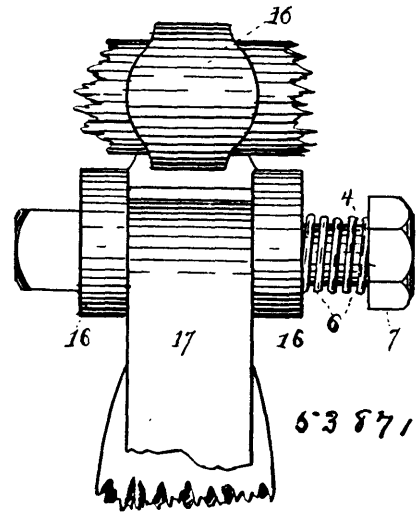
Adelaide Ritchie McDonald, Dunedin, Zealand, 23rd October, 1896; 6 years. (Filed 1st October, 1896.)

Claim.—1st. In pneumatic cushions for stuffing any form of horse collar, vehicle or riding saddles, the combination of various-sized tubes A, A^1 coiled to the required shapes with the filling and retaining valve H, substantially as described and set forth. 2nd. In pneumatic cushions for stuffing any form of horse collar, vehicle or riding saddles, the combination of the shaped or moulded cushions with the various forms of staying same (such as divisions B, C, D, or stays E. F), the air being filled and retained by the valve H, substantially as shown and described. 3rd. In pneumatic cushions for stuffing any form of railway and horse carriages or furniture, the combination of various-sized tubes A, A^1 coiled to the required shapes with the filling and retaining valve H, substantially as described and set forth. 4th. In pneumatic cushions for stuffing any forms of railway or horse carriages or any description of stuffed furniture, the combination of the shaped and moulded cushions with the various forms of staying same (such as the divisions B, C, D, or stays E, F, G), the air being filled and retained by the valve H, substantially as described herein and explained.

No. 53,871. Nut and Bolt Lock, (*Arrête-écrou et boulon.*)

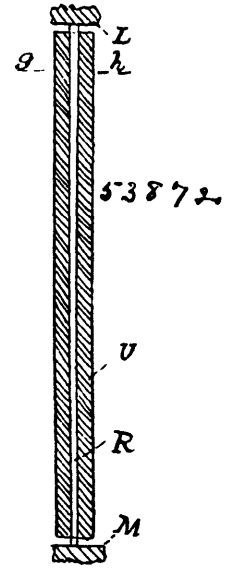
Allen P. Lord and Lemuel C. Devinney, both of Bradford, Pennsylvania, U.S.A., 23rd October, 1896; 6 years. (Filed 2nd October, 1896.)

Claim.—1st. In a nut and bolt locking device, the combination with the threadless bolt provided with the annular recess, the longitudinal recesses and the locking seats, the threadless nut provided with one or more inner projections and a spring, substantially as shown and described. 2nd. In a nut and bolt locking device, the combination with the threaded bolt provided with the annular recess, the longitudinal recess and the locking seats, of the threaded



nut provided with a serrated face, the threadless nut provided with one or more inner prejections and a serrated face, and the helical spring, all substantially as shown and described.

No. 53,872. Bearing Rib for Compression Members for Building Purposes. (*Membrure de support pour membres à compression à l'usage des constructions.*)



Charles Steiner, Brooklyn, New York, U.S.A., 23rd October, 1896; 6 years. (Filed 2nd October, 1896.)

Claim.—1st. A bearing rib for compression members composed of a series of thin steel plates, the alternate one of which is hardened throughout and the remainder only on their outer and inner free surfaces, the plates being arranged with their adjacent surfaces in close contact and with the fibre of the two sets of plates crossing each other. 2nd. The method of constructing a bearing rib for compression members, which consists in heating a series of unhardened steel plates, placing them while red hot alternately between a series of hardened steel plates with the fibres of the two series crossing and then subjecting the built-up plates to pressure to cause them to closely adhere to each other.

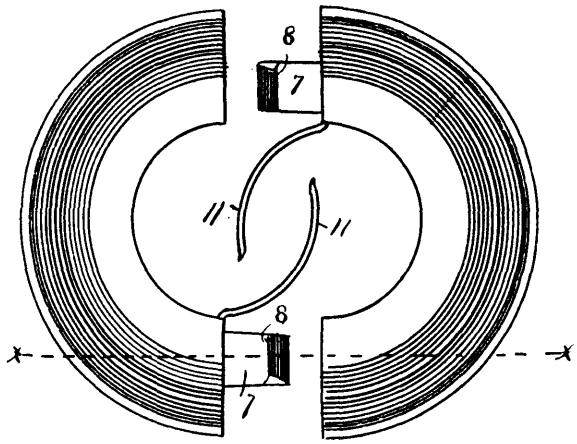
No. 53,873. Floor and Ceiling Plate.

(*Plaque de planchers et plafonds.*)

Lyman H. Snyder Southington, Connecticut, U.S.A., 23rd October, 1896; 6 years. (Filed 2nd October, 1896.)

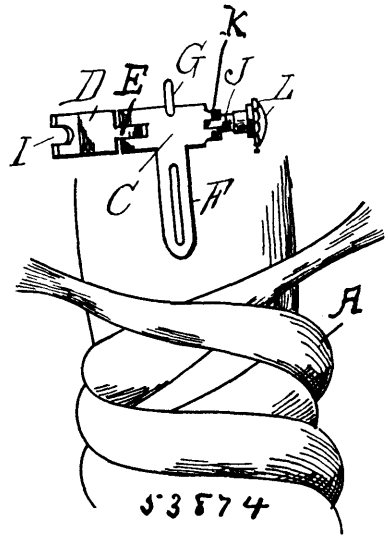
Claim.—1st. A floor and ceiling plate comprising two separable parts each part provided at one end with a transverse hook and at the other end with an under cut ledge to receive one edge of said

hook and also a ridge or shoulder 10 for the hook to engage, substantially as described and for the purpose specified. 2nd. A floor and



ceiling plate comprising two separable parts, the confronting portions of which are provided with interlocking devices, and springs 11 arranged one on each part to project therefrom and return for facing the pipe receiving portion of said part, whereby said spring will bear upon one side of the pipe and the part of the plate to which that particular spring is secured will bear upon the opposite side of the pipe and the two springs act, to draw said two parts together, substantially as described. 3rd. A floor and ceiling plate comprising two separable parts having interlocking devices at their ends and spring holding pins or posts in the space inside of its floor or ceiling flange, and springs secured to said spring holding pins or post and extending across from one end of each part and outwardly therefrom, substantially as described and for the purpose specified. 4th. As a new article of manufacture, a floor and ceiling-plate comprising the semi circular plate, provided at one end with a transverse hook and projecting spring and at the other end with an under cut ledge and ridge or shoulder 10, substantially as described and for the purpose specified.

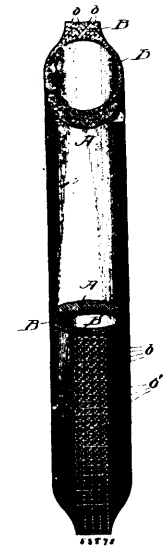
No 53,874. Tail Fastener. (*Attache-queue.*)



Willeve T. Merriman, Jackson, Michigan, U.S.A., 23rd October, 1896; 6 years. (Filed 2nd October, 1896.)

Claim.—1st. A tail-fastener comprising a clamp, a shank extending from one side thereof adapted to be engaged under the coils of the tail, and a hook around which the endsof the coil may be drawn, substantially as described. 2nd. A tail-fastener, comprising the member C having extending oppositely therefrom the shank F, and the hook G, the member D hinged to the member C, and a screw adapted to clamp the members together, substantially as described. 3rd. A tail-fastener comprising the member C, having extending therefrom the shank F and hook G, the member D hinged to the member C, having the slot I at its free end, the bolt J pivoted to member C and the nut L thereon, adapted to engage with the slotted end of the member D, substantially as described. 4th. A tail-fastener, comprising the T-shaped member C, having the shank F and hook G, the bolts J, J[1] hinged to the opposite ends of the T-head, the member D having an aperture at one end through which the bolt J[1] passes and the slot I at the other end, with which the bolt J engages, and the nuts L and L[1] on said bolts, substantially as and for the purpose described.

No. 53,875. Pneumatic Tire. (*Bandage pneumatique.*)

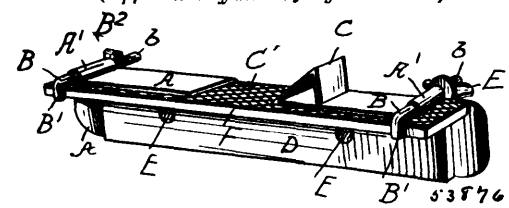


Thomas Furlong, St. Louis, Missouri, U.S.A., 23rd October, 1896: 6 years. (Filed 3rd October, 1896.)

Claim.—1st. A pneumatic tire, the thread of which is cellular or honeycombed, substantially as described. 2nd. A pneumatic tire having a thread formed with cells, recesses or pockets, the faces of the dividing walls between said cells being of the same height, substantially as described. 3rd. The combination with a pneumatic tire, of means on the thread thereof for creating a suction therebetween and its point of contact with the ground, substantially as described. 4th. The combination with a pneumatic tire, of a flat thread formed on its outer periphery by increasing the thickness of the material at that point, the side walls of the tire being resilient, whereby when the tire assumes an angular position, as when going around curves, the thread will have a full contact with the ground, the inner or lower side wall of the tire bulging out beyond the rim to prevent rotary movement of the tire in its rim, substantially as described. 5th. The combination with a pneumatic tire, of a flat thread formed thereon, said thread having biting points at its edges, and cells or recesses in its face, substantially as described.

No. 53,876. Saw Jointers and Gages.

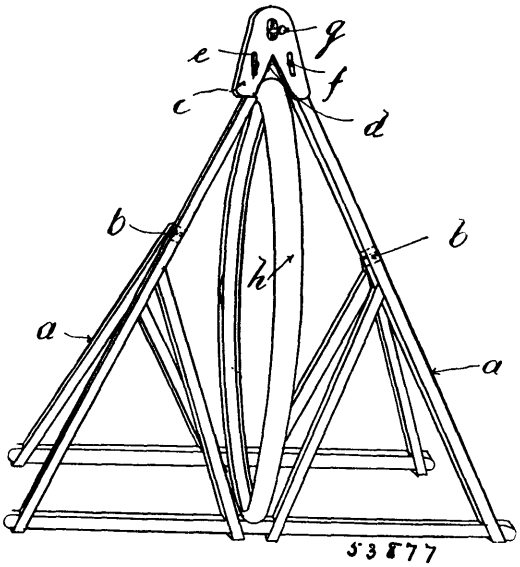
(*Appareil à affuter et jauger les scies.*)



Silas Buckingham, Marseilles, Ohio, U.S.A., 23rd October, 1896; 6 years. (Filed 5th October, 1896.)

Claim.—1st. A saw jointer and gage comprising a body portion having an opening in its upper portion and a thumb-piece formed by the metal removed to provide said opening, an adjustable plate, means for detachably holding a file parallel with the upper portion and between the same and the upper edge of said plate, and means for preventing displacement of the jointer and gage from a saw, substantially as described. 2nd. The combination with a sheet metal body having an opening in its upper part, of a thumb-piece formed by the metal removed to provide said opening, hooked rods passed through bearings on the body portion, nuts on the ends of said rods, and an adjustable plate parallel with the vertical portion of the body, substantially as described. 3rd. The combination of the body portion with an opening and a thumb-piece formed of the material removed to provide said opening, the plate and its adjusting and holding means, and means for detachably and adjustably holding a file, as set forth. 4th. The combination of the sheet metal body having the ends of its horizontal portion turned over to form eyes, the rods passed through said eyes and having hooked ends, and the nuts on the other ends of said rods, substantially as specified.

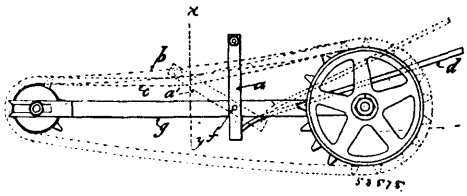
No. 53,877. Support for Bicycles. (*Support de bicycles.*)



Thomas Scott Mason, Ripon, Yorkshire, England, 23rd October, 1896; 6 years. (Filed 3rd October, 1896.)

Claim.—The bicycle rest consisting of two frames hinged together an adjustable piece having slots which engage upon pins carried by one of the frames, a screw pin or thumb screw for securing said piece in position and which engages upon the top of the wheel, all in combination and substantially as described.

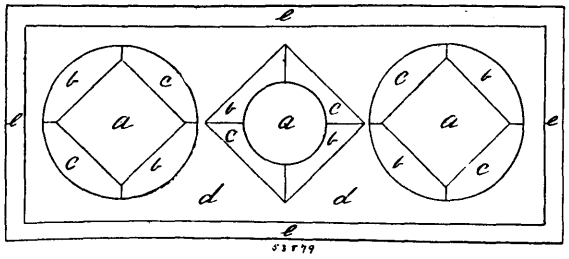
No. 53,878. Brakes for Bicycles, Tricycles, etc. (*Frein de bicycles, tricycles, etc.*)



Thomas Henry Simmonds, London, England, 23rd October, 1896; 6 years. (Filed 3rd October, 1896.)

Claim.—1st. In brakes for bicycles, tricycles, and other chain driven vehicles, a roller or brake block which is pressed or caused to bear upon the driving chain, being carried by a pivoted lever operated by a brake rod, substantially as described. 2nd. The application of brakes to the chains of velocipedes, substantially as described.

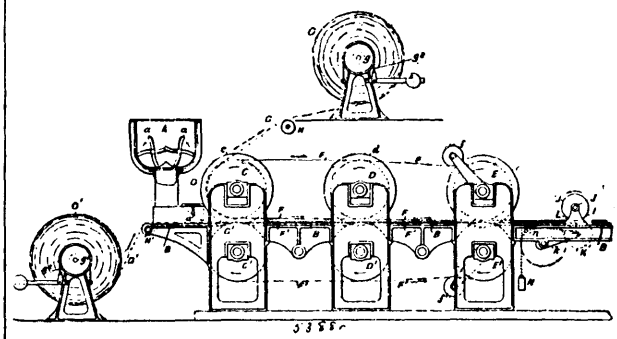
No. 53,879. Art or Process of Making Stone for Buildings, etc. (*Art ou procédé de faire de la pierre de construction.*)



Robert Allan Pyne, John Milton Huckins, Zachariah Hemphill and Henry Mortimer East, all of Toronto, Ontario, Canada, 24th October, 1896; 6 years. (Filed 3rd March, 1896.)

Claim.—1st. A block of artificial stone compossed essentially of a body of plastic material, and a facing of ground natural stone, mixed with a material to render it plastic, such facing being superposed upon said body while both body and facing are in such plastic condition, the whole being pressed and dried together, substantially as set forth. 2nd. An artificial stone having a body portion A formed from a plastic compound such as cement, concrete, etc., and a facing B, formed from ground natural stone, such as granite, marble, sandstone, etc., said ground natural stone being mixed with sufficient of said plastic compound to hold same together and to the plastic body A, substantially as set forth.

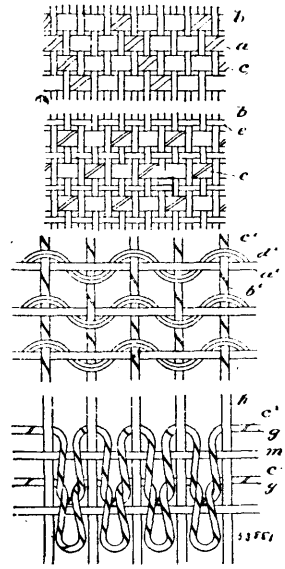
No. 53,880. Machinery for the Production of Slabs of Plaster, Cement or Composition. (*Machine pour la production de plaques de plâtre, ciment, etc.*)



Richard William Hitchins, Finsbury, London, England, 24th October, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—The herein described machine for moulding plaster, cement, and the like plastic material, in the form of a continuous sheet, covered or not with woven fabric and cutting it up into slabs, the said machine comprising means for supplying the plastic material through a delivery slot, to and between a pair of travelling bands running on pairs of pressing rollers and supported by a table, in combination with means of cutting up the moulded sheet into slabs, substantially as specified.

No. 53,881. Woven Fabric. (*Tissu.*)



Anton Vodel, Greiz, Prussia, Germany, 24th October, 1896; 6 years. (Filed 30th December, 1895.)

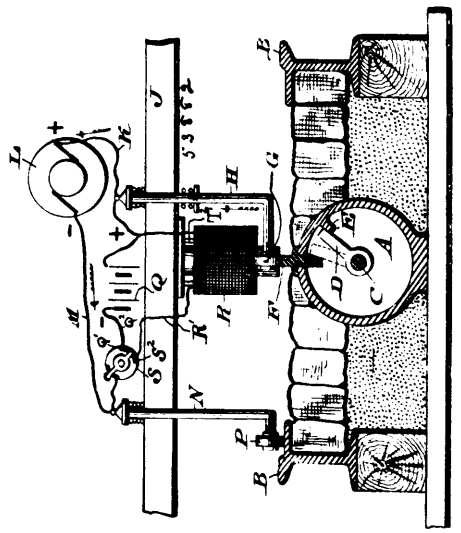
Claim.—A knitted, woven or netted fabric, consisting of three systems of regularly recurring threads, the first system being of wool, the next of silk and the third of a cotton-like material, the silk thread being wound on the wool thread, and so disposed in the fabric, that the silk thread is thrown towards the two surfaces of the fabric and partially conceals the wool, substantially as described.

No. 53,882. Electric Railway. (*Chemin de fer électrique.*)

Harry Clifton Reagan, jr., Philadelphia, Pennsylvania, U.S.A., 24th October, 1896; 6 years. (Filed 18th March, 1896.)

Claim.—1st. In an electric railway, a feed wire and contacts rotatably mounted thereon, said feed wire forming an axis for said contacts, substantially as described. 2nd. In an electric railway, the combination with a cable grip having an electro-magnet and contact devices mounted thereon, of a feed wire, a suitable conduit therefor, and contacts rotatably mounted on said feed wire, the latter forming an axis for said contacts, substantially as described. 3rd. In an electric railway, a feed wire, an insulated conduit therefor, a sectional conductor mounted in said conduit, contacts rigidly fastened to said feed wire and adapted to be drawn to said sectional conductor by a magnet, the tension of said wire serving to withdraw

said contacts after the progression of the magnet, substantially as described. 4th. In an electric railway, a closed insulated conduit

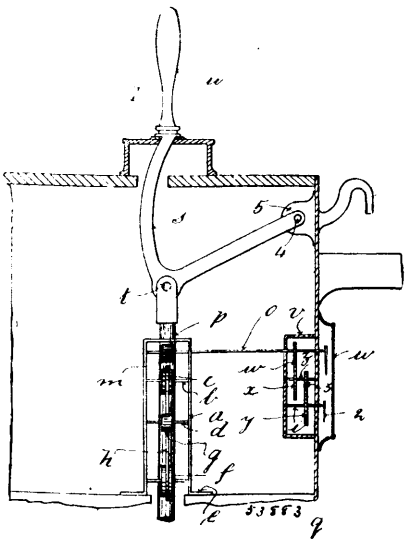


having a feed wire, rotatable contacts thereon, a sectional strip supported in said conduit extending within and without the same, said contacts being adapted to be moved into connection with said strip by the action of an electric magnet on a car, substantially as described. 5th. In an electric railway, a storage battery, a motor, a feed wire and a magnet, conductors therefor, said magnet being connected by the shunt across the circuit, and a switch for one branch of said magnet, substantially as described. 6th. In an electric railway, a conduit, a feed wire supported therein, and a conductor supported in said conduit and having its ends projecting therethrough and in connection with a sectional conductor or strip outside of said conduit, in combination with rotatable contacts mounted on said feed wire and adapted to contact with said conductor, substantially as described. 7th. In an electric railway, a permanent magnet, coils of wire forming an electro-magnet surrounding the limbs of said permanent magnet, and suitably supported, a lever and a fulcrum therefor, said lever having one end attached to said permanent magnet, while its other end is adapted to be operated by an attendant, whereby said permanant magnet is capable of adjustment relative to said electro-magnet, substantially as described. 8th. In an electric railway, a conduit, a feed wire supported therein, and contacts rotatably mounted on said feed wire, the latter forming an axis for said contacts, and the plane of rotation of said contacts being substantially at a right angle to the longitudinal axis of said feed wire, substantially as described. 9th. In an electric railway, the combination with a feed wire and contacts rotatably mounted thereupon, of means for limiting the movement of the latter, substantially as described. 10th. In an electric railway, a conduit, a feed wire therein, a plate supported in said conduit through which said feed wire passes, a portion of said wire being threaded, and an internally-threaded nut adapted to engage said feed wire and contact with said plate, substantially as described. 11th. In an electric railway, a feed wire, a conduit therefor, a contact strip, and a contact device rotatably mounted upon said feed wire, substantially as described. 12th. In an electric railway, the combination with a motor, magnet, storage battery and a switch suitably mounted on a car, of a conductor leading from said motor to said switch, and a conductor leading from said motor to the battery, magnet and feed wire in combination with a conductor leading from said battery to the battery point of said switch, and another conductor leading from the magnet to the magnet point of said switch, substantially as described. 13th. In an electric railway, a rotatable contact mounted upon a feed wire, one arm of said contact being of suitable magnetic material, and another portion of said contact being provided with a resilient arm, forming a spring for the purpose of assisting gravity to draw the contact away from the conductor, substantially as described.

No. 53,883. Registering Mechanism for Beer Engines. (*Régistre pour machines à bière.*)

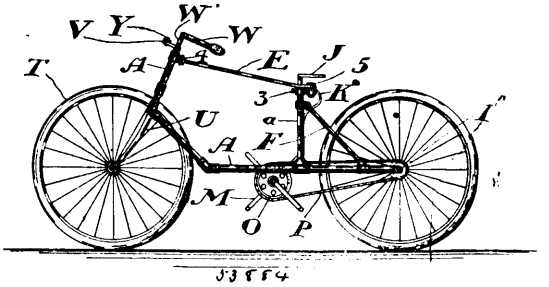
James Daniel Hannah and William Charles Clement Peele, both of Shrewsbury, Shropshire, England, 24th October, 1896; 6 years. (Filed 27th July, 1896.)

Claim.—In indicators for beer engines in combination, a frame carrying a toothed wheel and pulleys, an endless chain passing over same, a fixed spindle carrying a ratchet wheel, a pawl and spring upon said toothed wheel, said pawl engaging upon the ratchet wheel aforesaid, a projection upon the toothed wheel which operates a pinion wheel which is connected by a spindle to a train of wheels which operate a pointer, which moves over a graduated dial, a catch



piece pivoted to the rod which is connected to and operates the pump or beer engine, said catch piece actuating the chain in one direction of motion.

No. 53,884. Adjustable Two Side Seated Bicycle. (*Bicycle à deux siège ajustables.*)

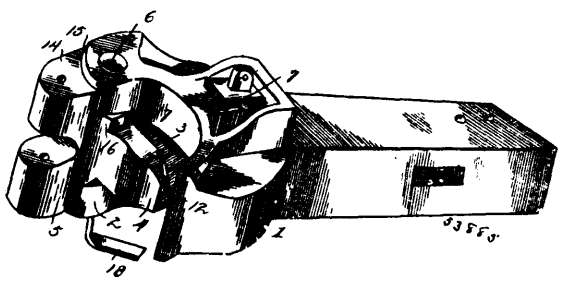


Albert S. Weaver, Hamilton, Ontario, Canada, 26th October, 1896; 6 years. (Filed 28th September, 1896.)

Claim.—1st. In a bicycle, the combination of side frames held suitable apart by means of cross braces and the axle for the rear wheel, the wheel being journalled thereon centrally between said side frames, a hub for the rear wheel sleeved on the axle and extending outwardly from the wheels between said side frames, separate driving mechanism connected with the outer ends of said extended hub and driven independently from each of said side frames, and steering gear for the front wheel, substantially as described and specified. 2nd. In a bicycle, the combination of side frames of any construction held suitably apart by means of cross braces and the axle for the rear wheel, a rear wheel located between said frames, a hub on said rear wheel sleeved on said axle and extending outwardly from said wheel into proximity with the said side frames, seats located on standards from each of said side frames, crank arms provided with pedals and connected with axles suitably journalled on the crank hangers of each of said side frames, pedal sprocket wheels on the axles of the crank arms adapted to drive rear sprocket wheels fixed to each of the outer ends of the extended hub of the rear wheel and immediately behind the pedal sprocket wheels, and a front wheel suitably journalled midway on the front cross braces between the side frames and steering gear for the said front wheel, substantially as described and specified. 3rd. In a bicycle, the combination of side frames of any construction held suitably apart by means of cross braces and the axle for the rear wheel, a rear wheel located between said frames, a hub on said rear wheel sleeved on said axle and extending outwardly from said wheel into proximity with the said side frames, seats located on standards from each of said side frames, crank arms provided with pedals and connected with axles suitably journalled on the crank hangers of each of said side frames, pedal sprocket wheels on the axles of the crank arms adapted to drive rear sprocket wheels fixed to each of the outer ends of the extended hub of the rear wheel and immediately behind the pedal sprocket wheels, and a front wheel journalled on its fork, the fork stem being held by a head located on the front braces midway between the side frames, a lever fixed to the fork stem and pivotally connected with a cross rod, levers fixed to the shanks of the handles journalled on the side frames and also pivotally connected with the

cross rod, substantially as described and specified. 4th. The combination of the two-sided tubular frame A, with the central front tubular part A^1, to receeive shank of fork U, and connected together by means of the cross braces B and C, each side of said frame having a vertical tubular standard *a*, which are capable of supporting the seat supports J, provided with slots 2, by means of their shanks J^1, and held in position by means of set-screws 3, the curved cross brace K, connected to said standards, and having a central hub of same height adapted to receive the shank J^1 of seat support J, the brace E, its forward end pivoted to lugs 4, its radial centre and its rear end capable of attachment to either of the upper ends of said standards or the said hub of cross brace K, by means of the insertion of one said shank J^1 or of pin 5, the brace F, the crank pedals M, and the ground wheels, substantially as described. 5th. The combination of the two-sided frame A, with the central front part A^1, of tubular construction to admit the shank of fork U, in connection with ground wheel T, and connected together by cross braces B and C, said frame having tubular standards *a* capable of receiving and allowing of adjustment the shanks of seat supports J, the rearward curved brace K, connected to said standards and having a central hub of same height capable of receiving a shank of seat support J, the brace E, pivoted to lugs 4, and to either one of said standards, or to the hub of brace K, by means of pin 5, or said shank J^1, the pedals M, the through rigid axle H, provided with ground wheel N, having central hub N^1, and extension hubs S, having openings 6, and sprocket wheels R, as a part thereof, the sprocket wheels O, and chains P, the two pairs of detachable handles W, having shanks W^1, capable of insertion in upper tubular front of both sides of frame and also in the tubular shank of fork U, the two side levers V, secured to shanks of said handles, the lever V^1, the forward ends of said levers secured to the cross rod Y, and the ground wheel T, journalled to the said fork U, substantially as described.

No. 53,885. Car Coupler. (*Attelage de chars.*)



David J. Schulte and Alexander L. Chambers, both of Latrobe, Pennsylvania, U.S.A., 26th October, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a car coupling, the combination of a draw-head having knuckle-pin receiving eyes, and provided in rear of the same at the inner and outer sides thereof with shoulders, a knuckle provided with corresponding shoulders at its inner and outer sides, the outer shoulders limiting the opening of the knuckle and the inner shoulders being in contact with those of the draw-head when the knuckle is closed, and a knuckle pin, substantially as described. 2nd. In a car coupling, the combination of a draw-head provided with knuckle pin receiving eyes and having in rear of the same shoulders, a knuckle pin arranged in the eyes, a knuckle pivoted between the eyes by said pin and provided with shoulders engaging those of the draw-head when the knuckle is closed, to relieve the knuckle pin of strain, substantially as described. 3rd. In a car coupling, the combination of the draw-bar, the coupler head on the outer end thereof, said head being provided with the knuckle pivoted therein with the recess in said draw-head adapted to receive said locking arm, the long circular incline on the end of the knuckle arm which works in connection with the opening and inclines on the locking-pin, which makes the locking pin move vertically and rearwardly at the same time with ease and without fail, the crooked locking pin having an opening to receive the knuckle-arm, and at the upper part of said opening in the locking-pin there is an incline, and from the lower part of said opening in the locking pin to the lower end of the locking pin there is an incline, the opening in the locking pins with the upper and lower inclines being used in connection with the long circular incline on the end of the knuckle-arm forms a triple incline and makes the locking pin move vertically and rearwardly at the same time, thereby making automatic coupling easy and positive. 4th. A supporting device for car couplings, designed to be arranged at the bottom thereof, and constructed of a single piece of material, and consisting of a substantially L-shaped bracket provided at its top with a knuckle pin opening, whereby the device is adapted to be readily applied to any ordinary draw-head having a knuckle, and the rearwardly and upwardly extending arm located at the top of the bracket and conforming to the configuration of the lower face of the draw-head, and adapted to fit in a recess or indentation to lock the device against pivotal movement on the knuckle pin, substantially as described.

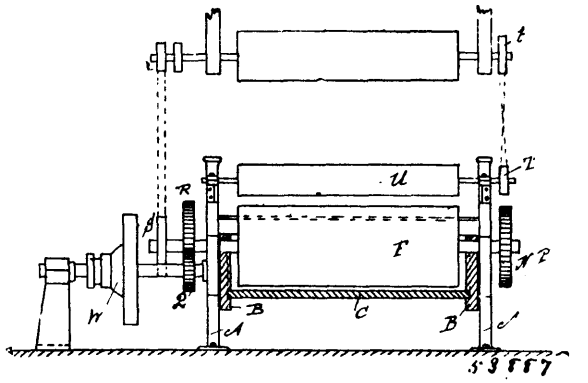
No. 53,886. Method of Making Artificial Stone.

(*Méthode de faire de la pierre artificielle.*)

Peter Kleber, St. Johann-Saarbrucken, Prussia, Germany, 26th October, 1896; 6 years. (Filed 28th September, 1896.)

Claim.—The herein described process of making artificial stone, consisting in mixing burnt lime with powdered stone or sand and water, moulding the resulting mass under pressure, subjecting the moulded forms to heat so as to drive off the water and leave them in a porous condition, and then introducing vapour of water and carbonic acid under pressure, so as to cause the latter to penetrate the moulded forms, substantially as set forth.

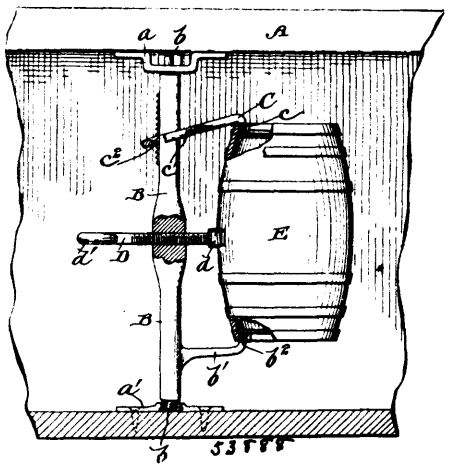
No. 53,887. Starch Mangle for Filling Cotton Fabrics with Starch. (*Appareil pour enduire les tissus de coton d'empois.*)



Thomas Whitworth, Montreal, Quebec, Canada, 26th October, 1896; 6 years. (Filed 6th October, 1896.)

Claim.—The combination of rollers F and G and the doctors D and E in the box B, C, substantially as and for the purpose hereinbefore set forth.

No. 53,888. Barrel Support. (*Support de baril.*)

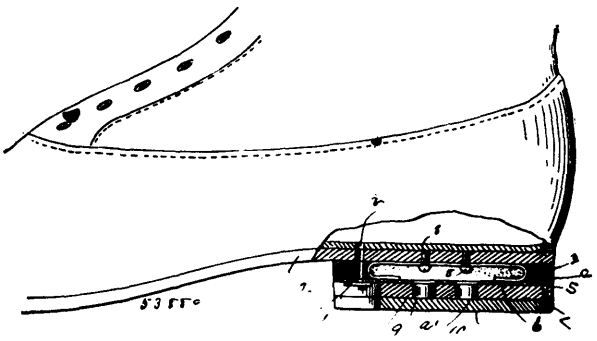


George A. Doyle, Gandeeville, West Virginia, U.S.A., 26th October, 1896; 6 years. (Filed 7th October, 1896.)

Claim.—1st. In a barrel support, the combination of a standard adapted to be journalled beneath a counter and provided with a rigid barrel supporting hook, an adjustable hook provided with an eye adapted to fit about said standard and having a knife edge, a rack on said standard adapted to be engaged by said knife edge, and a thrusting device mounted on the standard for forcing the barrel away from the same and against the hooks, substantially as described. 2nd. In a barrel support, the combination of a standard adapted to be journalled beneath a counter and provided with a rigid barrel supporting hook and an adjustable hook having an eye adapted to fit about said standard, a rack on said standard adapted to be engaged by said eye and a screw passing through the middle of said standard and having a head adapted to engage the barrel and force it outward and thus keep the hooks firmly engaged, substantially as described.

No. 53,889. Spring Heel for Boots or Shoes.

(*Talon à ressort pour chaussures.*)

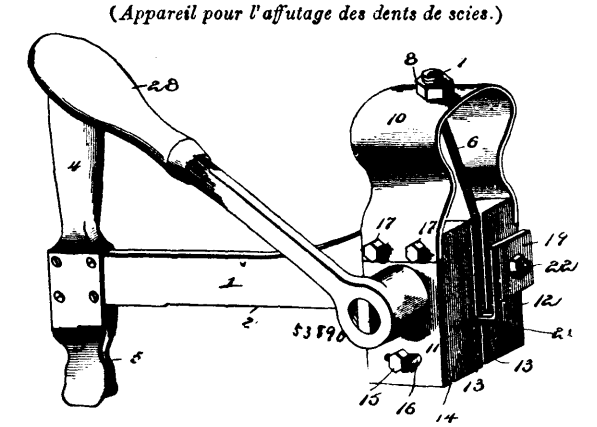


John Bresman, San Francisco, California, U.S.A., 26th October, 1896; 6 years. (Filed 8th October, 1896.)

Claim.—1st. In a spring heel for boots and shoes, the combination with the metallic plates of a spring connection between the sole of the boot or shoe and the metallic plate, the elastic cushion interposed between the said plate and sole, an air passage-way formed through the heel and sole of the boot or shoe, and of a valve controlling the said air passage-way. 2nd. The combination with a boot or shoe, of a spring heel secured thereto, an air passage-way leading from the spring within the boot or shoe, and of a valve controlling the said air passage-way.

No. 53,890. Side-Dresser for Saw-Teeth.

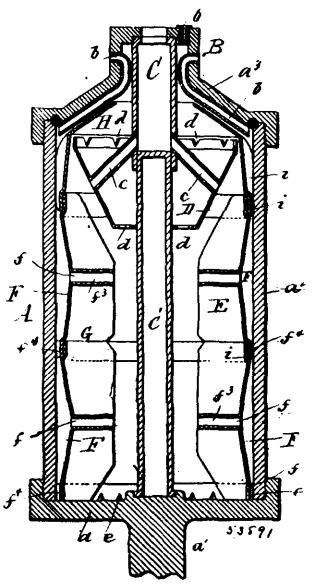
(*Appareil pour l'affutage des dents de scies.*)



George McClellan Brown, Franklin, Louisiana, U.S.A., 26th October, 1896; 6 years. (Filed 9th October, 1896.)

Claim.—1st. The combination of a guide adapted to be arranged in the plane of a saw to bear against the extremities of its teeth, laterally movable die-carrying jaws arranged upon opposite sides of the plane of the guide, an arched spring-plate terminally connected to the jaws, operating devices for moving the jaws toward each other against the tension of the spring-plate, and adjustable connections between the guide and an intermediate part of the spring-plate to vary the relative positions of the guide and jaws, substantially as specified. 2nd. The combination of a guide terminating at one end in an upstanding handle and at the other end in a head, laterally movable jaws arranged upon opposite sides of the plane of said head and carrying die-blocks, an arched or bowed plate connecting the jaws, means for adjustably securing the head of the guide to said plate, whereby the guide may be adjusted vertically with relation to the jaws, and means for feeding the jaws toward and from each other, substantially as specified. 3rd. The combination of a guide adapted to be arranged in the plane of a saw, laterally movable die-carrying jaws arranged upon opposite sides of the plane of the guide and provided with transversely registering openings, a feed-screw extending loosely through the opening in one jaw and secured in the aligning opening of the other jaw, yielding means for normally holding the jaws spread, and an operating lever threaded at one end upon a portion of the feed-screw which projects beyond the first-named jaw, and bearing against the outer face of said jaw, whereby lateral reciprocation of the co-operating jaws may be caused by the oscillation of said lever, substantially as specified. 4th. The combination of laterally movable jaws carrying die-blocks, a bowed or arched spring-plate connecting the jaws, a guide arranged at its front end between the planes of the jaws and having an upward threaded extension fitting in an opening at the centre of said spring-plate, nuts engaging said extension above and below the plane of the spring-plate, a feed screw secured to one of the jaws, and an operating lever threaded upon said screw and engaging the other jaw, substantially as specified. 5th. The combination with laterally movable jaws, a guide arranged between the planes of the jaws, and means for moving the jaws toward and from each other, of die-blocks carried by the jaws and provided with bevelled or chamfered faces which are tapered in width continuously from one end to the other, and adjustable means for controlling the position of a saw-tooth with relation to the die-blocks, substantially as specified. 6th. The combination with laterally movable jaws, a guide arranged between the planes of the jaws, and means for moving the jaws toward and from each other, of die-blocks carried by the jaws and provided with chamfered faces which are tapered in width continuously from one end to the other, a tooth-stop arranged in operative relation with said die-blocks, and means for adjusting the tooth-stop longitudinally of said chamfered faces, substantially as specified. 7th. The combination with laterally movable jaws, a guide arranged between the planes of the jaws, and means for moving the jaws toward and from each other, of die-blocks carried by the jaws and having chamfered faces tapered in width, a tooth-stop mounted upon one of the jaws and having a tongue extending rearwardly between the jaws to determine the position of the saw-tooth between said chamfered faces of the die-blocks, and means for adjusting the tooth-stop longitudinally of the die-blocks, said means including set screws against which the body-portion of the tooth-stop is arranged, and a clamping screw to hold the tooth-stop in contact with the heads of the screws, substantially as specified. 8th. The combination with laterally movable jaws, a guide arranged between the planes of the jaws, and means for moving the jaws toward and from each other, of die-blocks carried by the jaws and having chamfered surfaces which are tapered in width continuously from one end to the other and means for adjusting the die-blocks independently of each other and longitudinally of the jaws, substantially as specified. 9th. The combination with laterally movable jaws, a guide arranged between the planes of the jaws, and means for moving the jaws toward and from each other, of die-blocks carried by the jaws and having chamfered faces tapered in width continuously from one end to the other, and set screws engaging the die-blocks and extending through elongated openings or slots in the jaws, whereby said die-blocks may be independently adjusted longitudinally of the jaws, substantially as specified.

No. 53,891. Centrifugal Creamer. (*Crémeuse centrifuge.*)

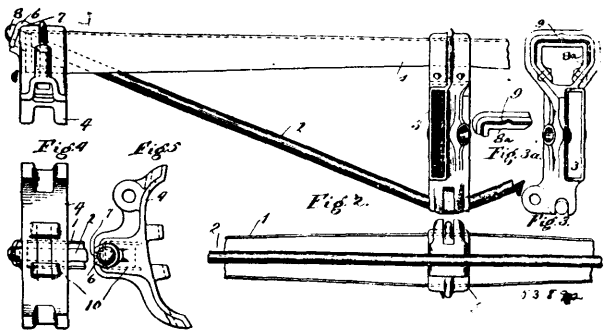


W. H. Burrell & Company, Little Falls, assignee of Mathew La Rue Hoyt, Birchtown, both of New York, U.S.A., 26th October, 1896: 6 years. (Filed 28th September, 1896.)

Claim.—1st. The combination with a separator bowl having suitable feed and discharge devices, of an internal shell arranged in the liquid space of the bowl near the peripheral wall thereof and having its outer surface composed of depressed portions and intervening ridges or elevations, which depressed portions approach the axis of the bowl from all directions, and have at their innermost points outlets through which the cream flows inwardly, substantially as set forth. 2nd. The combination with a separator bowl having suitable feed and discharge devices, of an internal shell arranged in the liquid space of the bowl near the peripheral wall thereof, and having its outer surface composed of depressed portions and intervening ridges or elevations, which depressed portions approach the axis of the bowl from all directions and have at their innermost points outlets through which the cream flows inwardly, and a cover applied to the upper end of said shell and extending inwardly to a point near the cream zone, substantially as set forth. 3rd. The combination with a separator bowl having suitable discharge devices, of

an internal shell arranged in the liquid space of the bowl near the peripheral wall thereof, and having its outer surface composed of depressed portions and intervening ridges or elevations, which depressed portions approach the axis of the bowl from all directions and have at their innermost points outlets through which the cream flows inwardly, a cover applied to the upper end of said shell and extending inwardly to a point near the cream zone and a feed device delivering the milk into the upper portion of said shell, substantially as set forth. 4th. The combination with a separator bowl having discharge devices for the separated cream and skim milk in its top, a feed pipe provided with an outwardly extending delivery pipe in the upper portion of the bowl, and an annular shield arranged in the upper portion of the bowl concentric with the latter, and extending from the mouth of said delivery pipe outwardly and upwardly toward the skim milk zone and downwardly and inwardly toward the cream zone, substantially as set forth. 5th. The combination with a separator bowl having discharge devices for the separated cream and skim milk in its top, of an internal shell arranged in the liquid space of the bowl near the peripheral wall thereof, a feed pipe provided with an outwardly extending delivery pipe within the upper portion of said shell, and an annular shield arranged within the upper portion of said shell and extending from the mouth of said delivery pipe upwardly and outwardly toward the skim milk zone, and downwardly and inwardly toward the cream zone and having at its upper end a passage through which partially skimmed milk can flow upwardly and at its lower end a passage through which the cream flows upwardly, substantially as set forth.

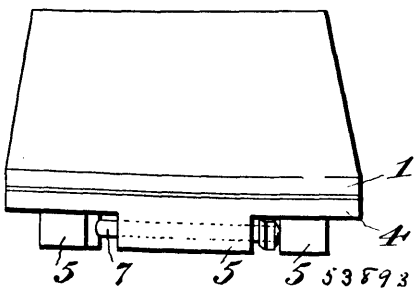
No. 53,892. Brake Beam. (*Sommier de frein.*)



The American Brake Beam Co., assignee of Charles L. Sullivan and Charles E. Burnap, all of Chicago, Illinois, U.S.A., 26th October, 1896; 18 years. (Filed 5th October, 1896.)

Claim.—1st. In a brake beam, the combination with a tension member, strut and brake heads, of a compression member of a channel shape, having a wide web at or near its middle, and a comparatively narrow web but wide flanges at or near its ends, substantially as described. 2nd. In a brake beam, the combination with a compression member, strut, and brake heads, of a tension member having upset heads or buttons on each end thereof, loops or eyes at or near the middle point thereof, and a pin engaging said loops or eyes, substantially as and for the purpose described. 3rd. In a brake beam, the combination with a compression member 1, tension member 2, strut 3, and brake heads 4, of upset heads or buttons 8, and split washers 6, arranged substantially as shown and described. 4th. In a brake beam, the combination with a compression member, and a strut having an opening at one end through which said compression member passes, of a split casting 8*a*, inserted within said compression member where it passes through said strut, and expanded to hold the same in place, substantially as shown and described.

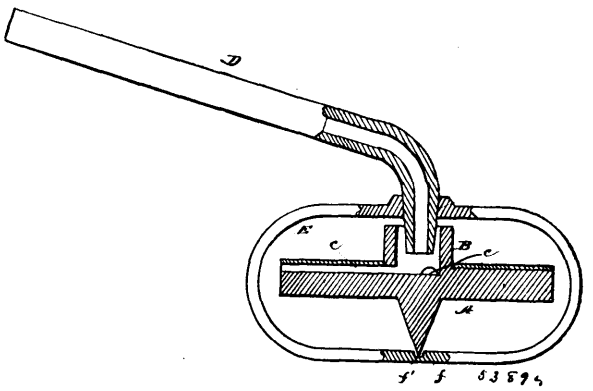
No. 53,893. Horse-Shoe. (*Fer à cheval.*)



James Bell Gillespie, East Liverpool, Ohio, U.S.A., 26th October, 1896; 6 years. (Filed 10th October, 1896.)

Claim.—1st. In a horse-shoe formed of two sections, a plate having slots for the reception of the lugs on the outer shoe thereby forming a dovetail, and a pin or bolt serving to expand the outer shoe and lock the same, substantially as shown and described. 2nd. In a horse shoe formed of two sections, the combination of the plate having slots for the reception of the lugs on the outer shoe, the said outer shoe being provided with calks, and one of said calks having an aperture for the reception of the bolt or pin, the opposite calk having a hole forming a bearing for the reception of the end of said bolt or pin, substantially as described and shown.

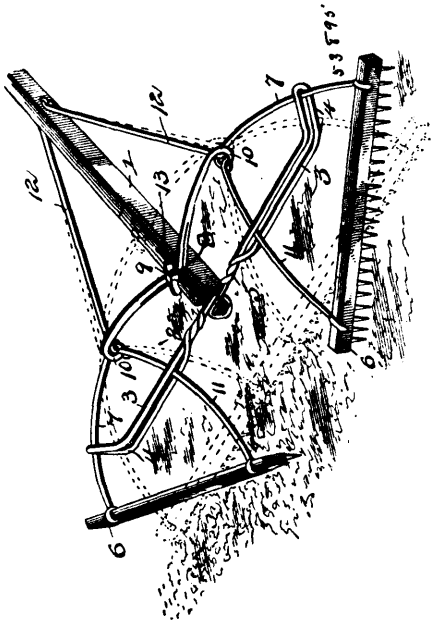
No. 53,894. Spinning Top. (*Toupie.*)



Alfred P. Monnier, Greenfield, and John C. Goodrich, Detroit, both in Michigan, U.S.A., 26th October, 1896; 6 years. (Filed 10th September, 1896.)

Claim.—1st. In combination with a top provided with a hollow spindle and air passages leading outward from the spindle through the body of the top and arranged to deliver air in a direction tangential to the top body, a blast pipe adapted to engage loosely in the hollow spindle, substantially as described. 2nd. In combination with a top provided with a hollow spindle and air passages leading outward from the spindle and arranged to deliver air in a direction tangential to the top body, a blast pipe adapted to engage loosely in the hollow spindle, and a holding frame provided with a table and with an orifice adapted to engage the end of the blast pipe, substantially as described.

No. 53,895. Garden Rake. (*Rateau de jardin.*)

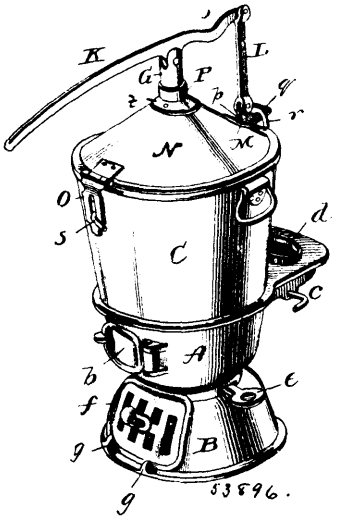


Emmanuel H. Snyder, Cedar Rapids, Iowa, U.S.A., 26th October, 1896; 6 years. (Filed 10th October, 1896.)

Claim.—1st. In a garden rake, the combination with a suitable handle, of two independent rake members, each comprising a toothed bar and a wire supporting frame rigidly connected therewith, the inner ends of said frame being adjustably connected with said handle, diagonally disposed flexible arms or braces connected with said handle and having the rake members pivotally connected to their forward ends, the looped or slotted guiding frame or arm rigidly connected with said handle and having the frames of the rake members arranged to slide therethrough, and means for adjusting and holding said frames at any angle and with their inner ends at the desired distance apart, substantially in the manner and for the purpose specified. 2nd. The combination in a garden rake, of

a handle, a cross head rigidly attached to the handle and projecting upon opposite sides thereof and looped or slotted to form combined guides and supports for the rake members, said rake members loosely mounted in the guides and having pivotal connection with the handle, and provision whereby the angles of the rake members may be adjusted, substantially as described. 3rd. In a garden rake, the combination with a suitable handle, of adjustable frames connected to the handle, flexible diagonal braces secured permanently to the handle at points intermediate the ends of the latter and forming the fulcrums for said frames, and the inwardly projecting arms rigidly connected to said frames at their rear ends and made adjustable longitudinally of the handle, substantially as described.

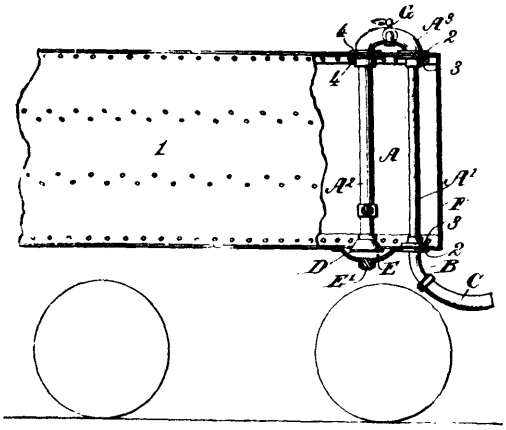
No. 53,896. Washing Machine. (*Machine à laver.*)



Isaac Hill Arnold, James Francis Lillard and Fred Sterzing, all of Austria, Texas, U.S.A., 26th October, 1896; 6 years. (Filed 13th October, 1896.)

Claim.—In a washing machine, the combination of a boiler, a detachable cover having a central aperture, a pounder, the stem of which passes through the aperture, a lever pivotally connected with said pounder stem intermediate of its ends, a link pivotally connected with said lever at one end and pivotally connected with a lug carried upon said cover at the other end, whereby the pounder and its operating mechanism are made removable with the cover, substantially as described.

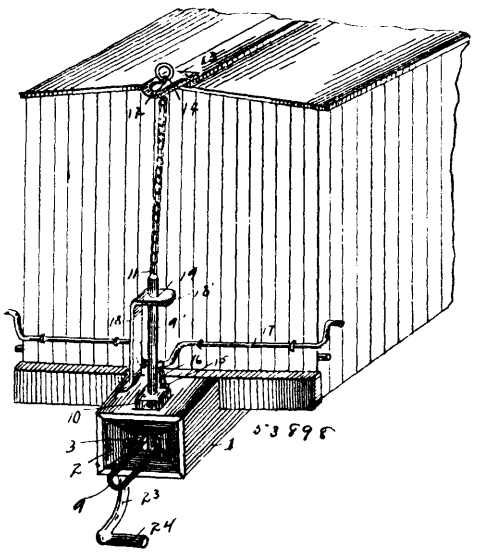
No. 53,897. Locomotive Tender Tank.
(*Reservoir de tender de locomotive.*)



Charles Lindstrom, Vicksburg, Mississippi, U.S.A., 26th October, 1896; 6 years. (Filed 12th October, 1896.)

Claim.—1st. The combination with a closed locomotive tender water tank, of a siphon-shaped pipe arranged therein, open at one end to the water in the tank and at its other end connected with a hose, and means carried by said pipe receiving the top and bottom of the tank, whereby said pipe serves the additional function of supporting and bracing said tank. 2nd. The combination with a locomotive tender tank, of a siphon-shaped pipe arranged therein, open at one end to the water in the tank and connected at its other end with a hose, and a lubricating and air cock in said suction pipe for preventing the siphoning of water out of the tank when the hose becomes disconnected.

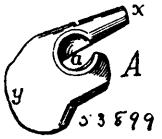
No. 53,898. Car Coupler. (*Attelage de chars.*)



Charles Edward Gallamore, Marcelline, Illinois, U.S.A., 26th October, 1896; 6 years. (Filed 14th October, 1896.)

Claim.—1st. The combination of the draw-head having slotted sides and a hollow central portion adapted to receive a sliding block, with a coupling-pin having a weight secured thereto, a plate projecting vertically from the upper surface of the draw-head and serving both as a guide and stop for the coupling-pin, means for lifting said coupling-pin from the top or either side of the car, and a pin carried by the sliding block and passing through the slotted sides of the draw-head, as shown and described. 2nd. In a car-coupling, the combination with a draw-head slotted at either side thereof and having a central hollow portion, of a sliding-block adapted to support a coupling-pin, a headed pin carried by said block and projected laterally beyond the draw-head at either side, said sliding block being provided with a concaved forward end, substantially as shown and described. 3rd. In a car-coupler, the combination of a draw-head having a central hollow portion and slotted sides, of a sliding-block adapted to support a coupling-pin, a pin carried by said block and projected laterally beyond the draw-head at either side, a counterbalance lever pivoted at one side of the draw-head, the long arm of said lever being adapted to contact with the under side of the draw-head and the short arm having contact normally against one end of said pin, substantially as shown and described. 4th. In a car-coupling, the combination with a draw-head having a central hollow portion and slotted sides, of a sliding-block adapted to support a coupling-pin, a headed pin carried by said block and projected laterally beyond the draw-head at either side, a counterbalance lever pivoted at one side of the draw-head and provided with an upper short arm and a lower long arm, the said lower arm of the lever being provided at its extremity with a right-angled portion adapted to contact with the under side of the draw-head, substantially as shown and described. 5th. In a car-coupling, the combination with a draw-head having a central hollow portion and slotted sides, of a sliding block concaved at its forward end and adapted to support a coupling-pin, a headed pin carried by said block and provided with an enlarged bearing portion near one end thereof, said pin being projected laterally beyond the draw-head at either side, a counterbalance lever pivoted at one side of the draw-head and having a short arm normally resting against the enlarged portion of said pin and adapted to assume three positions in respect to the draw-head, substantially as shown for the purpose specified. 6th. In a car-coupling, the combination with a draw-head having a central hollow portion and slotted sides, of a weighted coupling-pin, a pin carried by said block and projected laterally beyond the draw-head at either side, a counterbalance lever pivoted at one side of the draw-head and having a long and short arm, the short arm of said lever resting at all times against the pin carried by the sliding block, said lever serving as a stop for the sliding block and also serving so as to automatically cause the sliding block to assume its extreme forward position in the draw-head, substantially as shown and described. 7th. In a car-coupler, the combination with a draw head having a central hollow portion and slotted sides, of a weighted coupling-pin, a sliding-block within the draw-head, said block having a concaved forward end, a pin carried by said block and projected through the slotted portions of the draw-head, and a counterbalance lever pivoted at one side of the draw-head, the upper arm of said lever normally bearing against the pin carried by the sliding block, said lever serving to arrest the rearward movement of the block and to automatically control the forward movement of said block by the positions assumed in respect to the draw-head, substantially as shown and described.

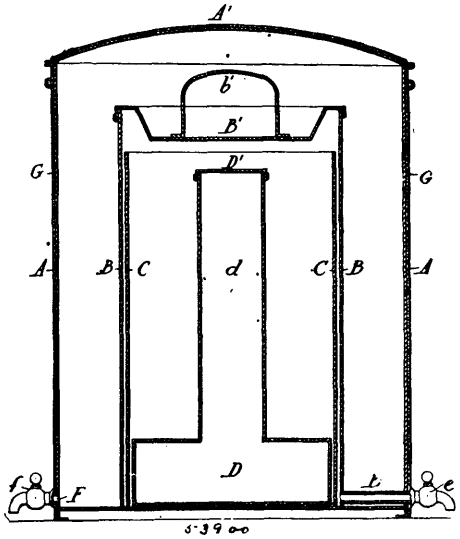
No. 53,899. Inside Fastener for Outside Windows.
(*Attache intérieure pour fenêtre extérieure.*)



Samuel Eldridge and G. Walter Abbott, both of Dexter, Maine, U. S.A., 26th October, 1896; 6 years. (Filed 12th October, 1896.)

Claim.—An outside-window fastener having a smooth shank and a strut or lug elbowing from the head of the bolt, and having its head bored through at a right angle to the length of the bolt, said bore being slotted out on the side toward the shank to permit the entrance of the fastening screw, all as and for the purpose set forth.

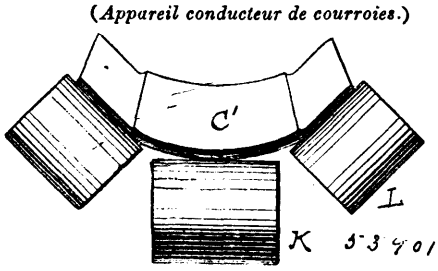
No. 53,900. Refrigerating Apparatus.
(*Appareil réfrigérant.*)



The Portable Refrigerator and Freezer Company, assignee of William Albert Shepard, both of Philadelphia, Pennsylvania, U.S.A., 28th October, 1896; 6 years. (Filed 30th September, 1896.)

Claim.—1st. The combination in an apparatus of the class described of an outer cylinder A having an outlet, an inner vessel B fixedly secured and having a pipe leading without the outer cylinder and provided with a closure, a second vessel C within the vessel B but removable therefrom, and a removable cylinder D within the vessel C, all substantially as and for the purposes set forth. 2nd. In an apparatus of the class described, the combination with an outer cylinder having a non-conducting covering and a controllable outlet, an inner vessel fixed to the base of said cylinder and provided with a pipe extending without the cylinder, a pan-shaped cover for said vessel, a second vessel arranged within and removable from the said vessel, and a second cylinder removably arranged within the second vessel and having a vertical extension and a closure for the latter.

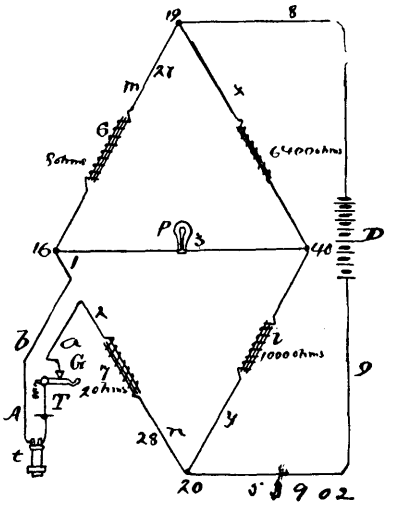
No. 53,901. Conveyer Belt Apparatus.
(*Appareil conducteur de courroies.*)



Thomas Robins, jr., New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 10th October, 1896.)

Claim.—1st. As an article of manufacture, the conveyer belt having a wearing face thicker at the central portions and thinner at the side portions, and combined with a backing which is thicker at the side portions and thinner at the central portions, substantially as set forth. 2nd. As an article of manufacture, a belt for conveyers and other uses presenting in cross-section, a wearing face, and a body portion or backing which is thicker at the edges and thinner and more flexible at one or more points nearer to the middle of the belt, the belt thus combining relatively stiff edges with one or more relatively flexible points between the edges, substantially as set forth. 3rd. A conveyer belt, consisting of a backing and a facing which has a thickened central portion, the said belt having stiffened edges or side portions, substantially as set forth. 4th. A conveyer belt of approximately uniform thickness, composed of suitably treated canvas or rubber, combined with a relatively greater number of plies of the canvas at or near the edges of the belt than in the middle, substantially as set forth. 5th. The supporting pulleys L, K, L, the hollow bearings F therefor and the horizontal and turn-up hollow shafts secured in the said bearings, and the oil devices mounted on the ends of the turn-up shafts, substantially as set forth. 6th. In combination, the two brackets or castings suitably supported, the horizontal pulley between them, the turn-up shafts secured in the said brackets or castings and the pulleys L loosely turning thereon, substantially as set forth.

No. 53,902. Telephone Signal and Signalling Circuit. (*Signal de téléphone et circuit de signalement.*)

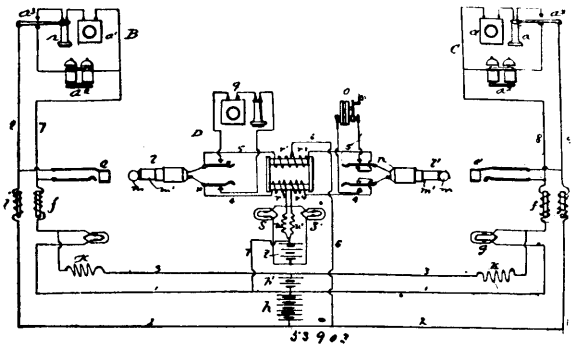


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Achilles de Khotinsky, Boston, Massachusetts, U.S.A., 28th October, 1896; 6 years. (Filed 17th August, 1896.)

Claim.—1st. The combination of a main telephone circuit extending between a central station and a substation, the telephone-switch or circuit-changer at the substation, and switch connections and an associated disconnecting signal at the central station, with a Wheatstone balance or bridge system, the said disconnecting signal being in the bridge or cross wire, and the telephone substation circuit and circuit changer being connected in one of the resistance arms of the said balance or system. 2nd. The combination with a substation telephone circuit, a main battery included therein, an automatic telephone switch controlling the resistance of said circuit at the substation, a connecting switch cord or like connection at the central station, and a glow-lamp disconnecting signal associated therewith, of a Wheatstone balance or bridge system having the said glow-lamp connected in its bridge or cross wire, balancing resistances or impedances connected with the cord conductors included in its several resistance arms, and the substation circuit and automatic switch contained in one of the said arms, whereby the resistance of the said arm, and the current through the bridge are made to depend on the position of the said switch, substantially as specified. 3rd. The combination in a telephone exchange, with a main circuit extending between a central and a sub-station, a switch actuated by the removal and replace of the telephone at the latter station controlling the continuity or resistance of the circuit, and a main battery and glow-lamp call-signal both at the said central station connected in the said circuit, of switch cord conductors at the central station adapted by plug-and-socket connections to unite any two circuits on the reception of a call signal, and arranged as a Wheatstone balance or bridge system of which the substation circuit when switched forms a part, the said system having a disconnecting signal lamp, and the main battery, in its two bridges or cross wires respectively, and the substation circuit, the resistance of the substation instruments, and the controlling switch thereof, in one of its arms or branches, so that an operative current may flow through the bridge and disconnecting signal lamp or not, according as the telephone at the substation is absent from, or placed upon its switch support. 4th. The combination of two telephone substation circuits connected at a central station by switch conductors constituting a link connection, to form a through or compound circuit, and an automatic tele-

phone switch at each substation controlling the continuity or resistance of its own circuit, with two Wheatstone balance or bridge systems, one for each substation circuit, interposed in the said switch conductors, glow lamp disconnecting signals one for each circuit, included each in the bridge or cross wire of the bridge system of its own circuit, a main battery in a third bridge or cross wire common to both bridge systems, each substation circuit, its instruments, and its automatic switch being connected in one of the branches of its own bridge system, to serve as a variable resistance therefor, whereby each disconnecting signal lamp is made responsive solely to the operation of its own substation switch, substantially as specified herein.

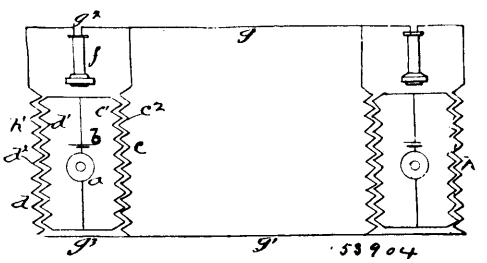
No. 53,903. Apparatus for Telephone Switchboards. (*Appareil d'échange de téléphone.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. The combination with a signalling circuit divided at one point into two parallel branches of fixed resistance, of means for varying the resistance of the signalling circuit, a source of signalling current in the undivided portion of the signalling circuit, a signal-indicating instrument requiring for its operation a definite predetermined current in one of the branches, a separate source of current in one of the parallel branches, the polarities of the source of signalling current and of the said other source being oppositely directed in the portion of the circuit including the signalling instrument, the electromotive force of said last-mentioned source being sufficient to prevent current from actuating the signal when the signalling circuit is closed, whereby the closing of the signalling circuit renders the signal inert, and the opening of the signalling circuit causes its display, substantially as described. 2nd. The combination with a telephone line provided with a switch adapted to interrupt the circuit and a source of current in the line, a portion of the line being divided into two parallel branches, of a signal lamp in one of the branches, a resistance coil in the other branch, and a source of current in one of the branches, the polarity of said last-mentioned source of current being adapted to oppose the passage of the signalling current through the lamp, and its electromotive force being sufficient to prevent the illumination of the lamp by current in the signalling circuit, substantially as described. 3rd. The combination with a telephone line, of a branch thereof including a signal lamp and a source of current, a spring jack connected with the line, a plug circuit for making connection with the spring jack and a conductor of low resistance connected with the plug adapted to form a bridge of the line circuit including the said source of signalling current, when connection is made with the line, whereby the signal lamp is shunted. 4th. The combination with a telephone line, of a spring jack constituting a terminal thereof, a signal lamp together with a source of signalling current in a permanently-closed bridge of the line circuit, a connecting plug and its plug circuit, and a conductor of low resistance including a signal lamp connected with the plug adapted to be brought into a bridge of the line circuit when the plug is inserted into the spring jack, substantially as described. 5th. The combination with a telephone line, a switch for interrupting the line at the substation, a spring jack constituting a terminal of the line in a switch-board, a signal lamp, a low-resistance branch of the line circuit including a source of signalling current temporarily associated with the circuit, a supervisory signal lamp in said low-resistance branch, a shunt circuit including a resistance coil about the lamp, and a source of current in the closed circuit formed by the shunt and the conductor including the lamp, the source of current being so adjusted with relation to the source of signalling current as to produce a condition of no difference of potential between the terminals of the supervisory signal when the line circuit is closed, substantially as described. 6th. The combination with a telephone line, of a switch at the substation for interrupting the line, a spring jack for the line in a switch-board, an impedance coil, a signal lamp, and a source of signalling current in a permanently-closed bridge of the line circuit, a pair of loop-connecting plugs for uniting lines, the different contact pieces of each plug being united through a helix or helices of the same induction coil and through a source of signalling current, a supervisory lamp signal in the conductor uniting the contact pieces of each plug, a shunt including a resistance coil about each supervisory signal lamp, and a source of current in each shunt adapted to divert the current of said source of signalling current from the corresponding supervisory signal when the line circuit is closed, substantially as described. 7th. The combination with a telephone line having a switch for interrupting the line circuit, a spring jack for making connection with the line, of a plug in the spring jack in continuation of the line, a source of signalling current in circuit with the plug, the circuit of the plug being divided at one point into two parallel branches, a signal lamp in one of the branches, and a source of current in one of the branches, the said last-mentioned source of current being of such strength and polarity as to prevent the illumination of the signal lamp by current from the signalling battery, substantially as described.

No. 53,904. Telephone Circuit. (*Circuit de téléphone.*)

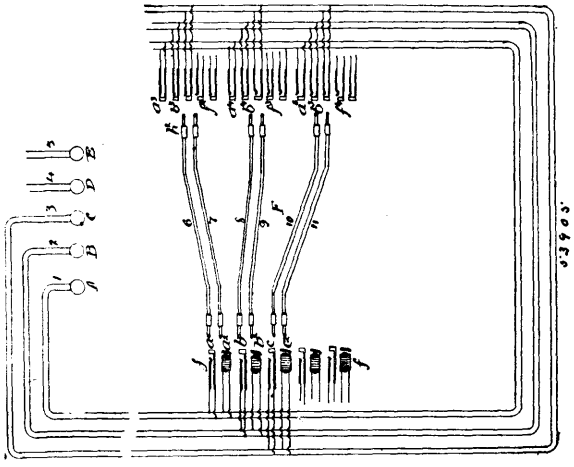


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. The combination with a line-circuit, of a receiving instrument and a source of current connected with the line at one station, and at another station a receiving instrument and a source of current in different parallel branches of the circuit, and a source of electromotive force in the branch with the receiving instrument adapted to oppose the passage through the receiving instrument of current from the said source in the other branch, substantially as described. 2nd. The combination in a telephone-circuit, of a source of telephonic undulatory current and a telephone-receiver in separate parallel branches of the circuit, and included in the branch with the receiving instrument, a source of undulatory or alternating electromotive force corresponding in phase and direction to that of the said source of current and nearly equal in amount to the difference of potential set up between the terminals of the branch including the receiver by the said source of current, whereby the shunting of the telephonic currents from the said source of current through the receiving instrument is prevented, substantially as described. 3rd. The combination in a telephone-circuit divided into two parallel branches at a station, of a telephone-receiver in one of the branches, and an induction coil having its secondary helix included in the other branch and its primary helix in circuit with the local microphone, and, included in the branch with the telephone-receiver, a source of undulatory or alternating electromotive force corresponding in phase and direction with that produced by the said secondary helix while the microphone is in operation, the electromotive force of said source being almost or quite equal in amount to the difference of potential produced by the said secondary helix between the terminals of the branch containing the receiver, whereby the side tone is prevented. 4th. In combination in a telephone-circuit divided into two parallel branches at a station, a telephone-receiver in one of the branches, a secondary helix of an induction-coil included in each of the branches, each of said secondary helices being placed in inductive relation with a primary helix connected with means for producing undulatory currents corresponding to sound-vibrations, the secondary helix in the branch with the telephone being adapted to have an electromotive force corresponding in phase and direction to that in the other secondary helix and slightly less in amount than the difference of potential set up between the terminals of the branch including the telephone by the other helix, whereby the side tone in the telephone is avoided. 5th. The combination in a telephone-circuit divided into two parallel branches at a station, of two induction coils having their secondary helices in the different branches, respectively, and their primary helices connected in separate parallel branches of a local microphone-circuit, the secondary helix in the branch with the telephone being adapted to have an electromotive force sufficient to practically prevent the shunting of current from the other branch through the branch containing the telephone, substantially as described. 6th. The combination with a telephone-circuit divided into two parallel branches at a station, of a source of telephonic undulatory current in one of the branches, a telephone-receiver in the other branch, and, in the branch with the telephone, a source of undulatory electromotive force corresponding in phase and direction with that of the source of current in the other branch and sufficient in amount to create a difference of potential between the terminals of its branch slightly less than the electromotive force of the source of current in the other branch, the latter branch being constructed to have a high impedance, whereby the shunting through the telephone of telephonic current produced by the source of cur-

rent in the other branch is prevented while incoming telephonic currents are directed through the telephone-receiver, substantially as described.

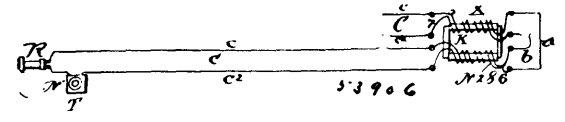
No. 53,905. Switchboard for Telephone Exchanges.
(*Echange de téléphone.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Joseph Phineas Davis, New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—In combination, an annunciator-switchboard containing a connection-socket and an annunciator for each telephone line of the exchange, a multiple switchboard of several sections each having in it a terminal connection-socket of each line of the exchange, and trunk-lines extending from the said annunciator-board to each section of the said multiple board, as described.

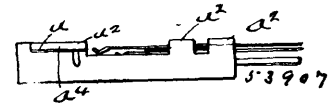
No. 53,906. Multiple Telephone. (*Téléphone multiple.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Frank Albert Pickernell, Newark, New Jersey, and Frederick Stanton Perrin, New York, State of New York, both in the U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. The combination of a metallic telephone line-circuit, a second main metallic telephone-circuit having for one of its sides or conductors a portion of both of the conductors in parallel of the first circuit, and a double-wound electromagnetic resistance or choking-coil having its two windings serially but opposingly connected in the conductors of the said first circuit at points beyond or outside the portion of them which forms one side of the second circuit, and adapted thereby to offer a minimum impedance to currents flowing through the conductors of the said first circuit in series, and a maximum impedance to currents flowing through the same conductors in parallel, substantially as specified. 2nd. The combination of two main telephone-circuits, each having an outgoing and a return conductor, and a third telephone-circuit whose direct and return conductors are formed of the two conductors in parallel of the said two original circuits respectively, one or both of said original circuits being longer than the said third circuit, or having an extension or prolongation beyond an end thereof, with an electromagnetic device interposed in circuit with the two conductors of each extension, immediately beyond the end of the said third circuit, and adapted to oppose a maximum impedance to currents traversing the conductors of the said extension in parallel, and a minimum impedance or simple resistance to currents traversing the said conductors in series, whereby the said original circuit extensions may be segregated from the said third circuit, and prevented from disturbing the balance thereof, substantially as specified. 3rd. The combination in a system of multiple telephony of two metallic telephone-circuits each extending between two terminal stations, electromagnetic resistance or single-wire choking-coils bridged between and connecting the two conductors of both of the said circuits at one or more pairs of stations located thereon, terminal conductors, including station telephones, uniting the central points of the said electromagnetic resistances of the two circuits at any pair or pairs of such statians, to form thereby one or more superimposed or phantom circuits, each having its two sides formed of portions of the two conductors in parallel of the two original circuits, and a series of double-wound electromagnetic resistances or choking-coils, associated with each of the said original circuits, and having their two windings serially connected in the two conductors thereof, the said choking-coils being interposed in pairs in their respective constituent circuits, at points between any two of the said extra or superimposed circuits, and so connected as to offer a maximum impedance to currents passing in parallel and the minimum impedance to currents passing in series over the conductors of the said two original circuits.

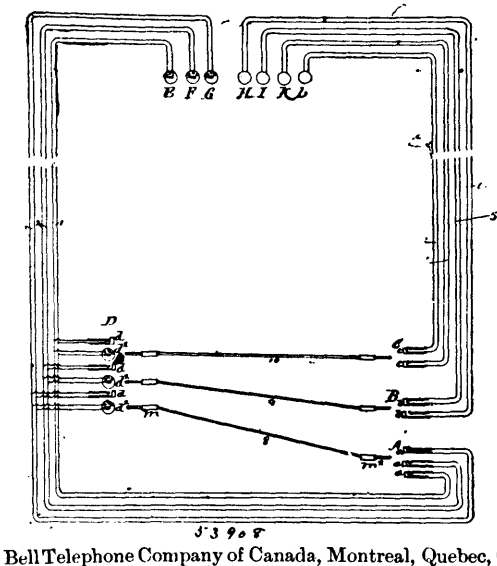
No. 53,907. Spring Jack for Telephone Switchboards.
(*Cric à ressort pour échanges de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Harry Bates Thayer, New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In a spring-jack switch, the combination with a pair of terminals or contacts connected with the opposite sides of a telephone line, of a connecting plug adapted to be inserted into said switch and carrying contacts adapted to engage said terminals, a thimble forming one terminal of an electric circuit and mounted in front of said pair of terminals, a flexible tongue forming the other terminal of said electric circuit and resting opposite said thimble, said plug being provided with a sleeve adapted to be inserted between said thimble and said tongue to electrically unite the same, the flexible tongue serving to press the sleeve firmly against the thimble and thus insure a good electrical contact between the sleeve, the thimble and the contact spring, substantially as described. 2nd. In a strip of spring-jacks, the combination with the strip or block a carrying the projections a^2, a^2, ridge h^3, and seat a^4, and upon which the contacts of the spring-jacks are mounted, of the test-rings d forming a complete ring at the top of the strip and carrying each a slot in the upper side, the thin strip of metal e carrying the tongues e^2, adapted to extend through the slots provided in the test-rings, and the plate g resting upon the strip e, substantially as described. 3rd. The combination with a number of spring-jack switches situated side by side to form a strip of spring-jack switches, of a pair of line springs or contacts for each said spring jack switches, said line springs or contacts being connected with the telephone lines, a plug adapted to be inserted into a switch and carrying contacts adapted to engage the terminals of the spring-jack switch, a thimble for each spring-jack switch, the thimbles being partially cut away upon one side to form a slot, and a strip of metal situated at the side of said thimbles and carrying a number of tongues, one projecting into the slot or cut-away portion of each of said thimbles, said plug being provided with a sleeve adapted when the plug is inserted in a switch-socket to pass between its thimble and the tongue corresponding thereto to electrically unite the same, substantially as described.

No. 53,908. Switching Apparatus for Telephone Exchanges. (*Commutateur pour échanges de téléphones.*)

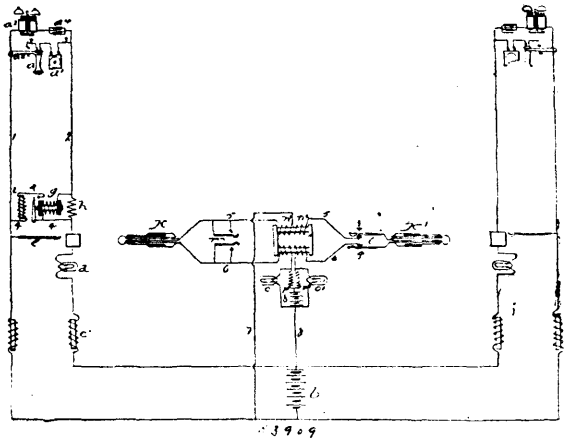


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Joseph Phineas Davis, New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In combination, several telephone-lines extending to terminal connection-sockets, an indicator for one of the lines adapted to indicate any of several objects, means for controlling the indica-

tor from the substation of the line, and switching apparatus for making connection from the socket of the line having the indicator to the terminal socket of any other line, as described. 2nd. In combination, several telephone lines terminating in connection-sockets on different switchboards, an indicator adapted to indicate any of several objects for one of the lines in an annunciator-board and means for controlling the indicator from the substation, and trunk-lines from the annunciator-board to each of the switchboards, as described. 3rd. In combination, telephone lines each extending to a connection-socket and an indicator at an annunciator-board, said indicator being adapted to designate any of several objects, means at each substation for controlling the corresponding indicator, other telephone lines terminating in connection-sockets in different switchboards, trunk lines extending from the annunciator-board to each switchboard, and switching apparatus at the annunciator-board and at the switchboards for making connection between any trunk line and any socket, as described.

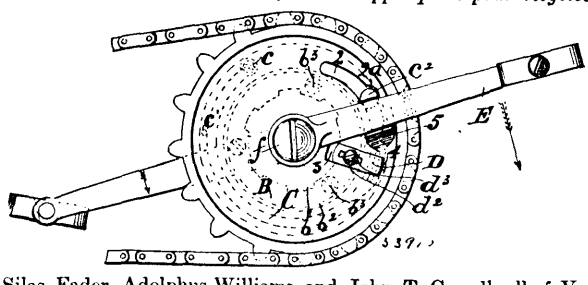
No. 53,909. Signalling Apparatus for Telephone Lines. (*Appareil de signal pour lignes de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Frank Robert McBerty, Downers' Grove, Illinois, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. The combination with a telephone line having a switch at its substation controlling the continuity of the line, and a signalling instrument and source of current in the line, of a subsidiary bridge or return circuit of the line between the signalling instrument and the substation, and means for controlling the continuity of the bridge from the substation, as described. 2nd. The combination with a telephone line including a switch at a substation and a signal-lamp and source of current at a central station, of a subsidary bridge or branch of the line adapted to form a local circuit for the lamp and source of current, and a relay connected with the line controlling the said bridge, as described. 3rd. The combination with a telephone line having a switch in the line at the substation and a signal-lamp and a source of current in the line at the central station, of a relay in the line and a bridge of the line including an impedance-coil controlled thereby, as described. 4th. The combination with a telephone line of high resistance containing a source of current and connected with signal-lamps requiring for their operation current greater than the said source of current is able to produce in the line, of a subsidiary return-circuit of lower resistance and a relay controlled from the substation controlling the said subsidiary circuit, as described.

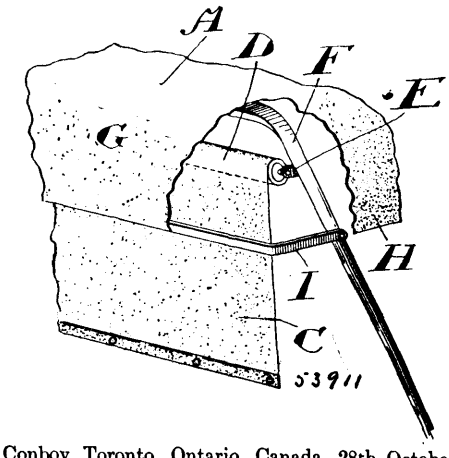
No. 53,910. Stop-motion Brake and Foot Rest for Bicycles. (*Frein et appui-pieds pour bicycles.*)



Silas Fader, Adolphus Williams and John T. Carroll, all of Vancouver, British Columbia, 28th October, 1886; 6 years. (Filed 8th October, 1896.)

Claim.—1st. In a stop-motion brake and foot rest for bicycles, the combination of a fixed disc upon a shaft having an extending sleeve, a second disc loosely mounted upon the said sleeve and lying in close proximity to the first-mentioned disc, and means for locking the loose disc to the fixed one, whereby it may be rotated, substantially as specified. 2nd. In a stop-motion brake and foot rest for bicycles, the combination of a fixed disc upon a crank shaft having an extending sleeve, a stout spring secured to and placed at a distance from the axis of the said disc, a projecting lug on one end of the spring and made to pass through an opening in the fixed disc and engage a loosely mounted pedal crank on the said shaft, a slot in the said spring placed at some distance from its projecting lugged end, of a sliding plate on the opposite side of the said disc, having projections at each end, the one projecting portion passing through an aperture in the disc and into the slot in the spring, and the other projection passing through a slot to within the said disc at a point towards its centre, substantially as specified. 3rd. In a stop-motion brake and foot rest for bicycles, the combination of a fixed disc upon a crank shaft, one of the cranks being loosely mounted thereon and lying in close proximity to the said disc, of a spring secured to the opposite side of the said disc having its loose end turned at right angles and projecting through an opening in the disc, the said opening having a recess in which the lug of the said spring rests while in its normal position, of a loosely mounted sprocket carrying disc mounted upon the extending sleeve of the fixed disc, and means for locking and releasing to and from each other by the back or forward pressure of the loosely-mounted pedal crank, substantially as specified. 4th. In a stop-motion brake and foot rest for bicycles, the combination of a fixed disc upon a crank shaft carrying a stout spring around and at some distance from its axis, the loose end thereof projecting through the said disc and being engaged by a loosely-mounted pedal crank on the said shaft, and a projecting shoulder upon the said disc, and made to engage the opposite side of the pedal crank, of a loosely-mounted sprocket-carrying disc mounted and arranged to turn in close proximity to the fixed disc, an extending flange having a shoe on its periphery and recesses on its inner side secured to the loosely-mounted disc within the arc of the spring on the fixed disc, a slidable plate arranged upon the outer side of the fixed disc having projections on each end, which pass through the slotted apertures in the said disc, the projection on the outer end engaging in a slot in the spring which incircles the shoe-covered flange on the loosely-mounted disc, and the projection on the opposite end of the slidable plate, when in its normal position is engaged by one of the recesses on the inner side of the band-covered flange secured to the loose disc, and thereby locking the same, substantially as and for the purposes hereinbefore set forth.

No. 53,911. Caleche Top. (*Dessus le calèches.*)



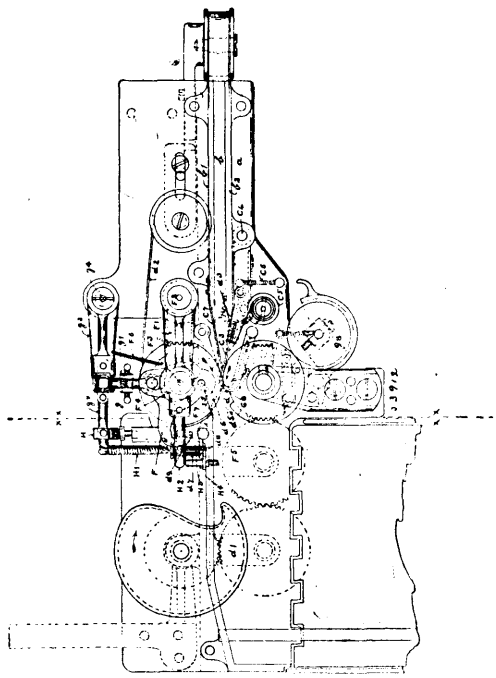
Daniel Conboy, Toronto, Ontario, Canada, 28th October, 1896; 6 years. (Filed 10th October, 1896.)

Claim.—1st. In a caleche top, the back bow, in combination with a spring roller journalled on the said bow near its upper end, a back curtain connected to the said roller, and a series of knobs on the back of the seat to engage with eyelets along the lower edge of the back curtain, substantially as and for the purpose specified. 2nd. In a caleche top, the back bow, in combination with the back valance connected to or forming part of the top and side quarters, and a light metal bar connected at each end to the back bow and fastened along its length to and partially joining the lower edge of the back valance, substantially as and for the purpose specified. 3rd. In a caleche top, the back bow, in combination with a back valance connected to and forming part of the top and side quarters, a light metal bar connected at each end to the back bow and fastened along its length and partially supporting the lower edge of the back valance, and a spring roller G, supporting the back curtain H, substantially as and for the purpose specified. 4th. In a caleche top, a side rail double-flanged or having a foot formed on it extending on each side of the rail, in combination with a seat iron to which the said foot is bolted, substantially as and for the purpose specified. 5th. In a caleche top, the combination of the back bow F, the lugs E, the

spring roller D, the back curtain C, the knobs J, adapted to engage with eyelets in the bottom of the curtain, the light metal bar I, the back valance G, side rail B, foot K, and seat iron L, substantially as and for the purpose specified. 6th. In a caleche top, the back bow and a spring roller and back curtain supported thereby, in combination with back stays and a bar or support for the upper ends of the back stays so that the back curtains will be drawn out to overlap them, substantially as and for the purpose specified. 7th. In a caleche top, the back bow and a spring roller and back curtain supported thereby, in combination with back stays and a bar or support for the upper ends of the back stays which are notched and connected partly to the said bar or support, and partly to the back bow, so that the back curtain may be drawn out to overlap said back stays, substantially as and for the purpose specified.

No. 53,912. Mail Marking Machine.

(*Machine à marquer la malle.*)



Agnes D. Carroll, Montreal, Quebec, Canada, assignee of Martin Van Buren Ethridge, Everett, Massachusetts, U.S.A., and J. Brooks Young, Montreal, Quebec, Canada, 28th October, 1896; 6 years. (Filed 12th May, 1896.)

Claim.—1st. In a mail marking machine, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, substantially as shown and described. 2nd. In a mail marking machine, the combination of a hopper, a carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, a timing stop located at or past the centre of the printing cylinder and impression cylinder, a continuously-rotating printing cylinder having a portion of its periphery cut away in advance of the cancelling marker and impression cylinder. 3rd. In a mail marking machine, the combination of a hopper, a horizontal and vertical carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, a roll for clamping the letter on to the vertical carrier, a printing cylinder and impression cylinder and timing stop located at or past the centre of the printing cylinder and impression cylinder. 4th. In a mail marking machine, the combination of a hopper, a carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, a letter trip and post flexibly connected to allow the trip to vibrate when the post is rigid or locked, a printing cylinder, and impression cylinder. 5th. In a mail marking machine, the combination of a hopper, a carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, a printing cylinder, and impression cylinder which moves to and from the printing cylinder by a walking beam pivoted off its centre and tipped by a cam rotated by the impression cylinder shaft. 6th. In a mail marking machine, the combination of a hopper, a conveying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, a printing cylinder having within its periphery and tread a locking device for holding a printing die and type, a spring to throw the die out when unlocked, a timing stop located at or past the centre of the printing cylinder and impression cylinder, a packing device. 7th. In a mail marking machine, the combination of a hopper, a horizontal and vertical carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, means for yieldingly pressing the letter against the vertical belt, a printing cylinder and impression cylinder, and timing stop located at or past the centre of the printing cylinder and impression cylinder. 8th. In a mail marking machine, the combination of a hopper, a horizontal and vertical carrying belt therein, a letter-retaining and automatic-releasing timing clamp and means for operating said clamp, means for yieldingly pressing the letter on to the vertical carrying belt, a printing cylinder and impression cylinder, and timing stop located at or past the centre of the printing cylinder and impression cylinder, a continuously-rotating printing cylinder having a portion of its periphery cut away in advance of the cancelling marker. 9th. In a mail marking machine, the combination of a hopper, a carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, a cylinder carrying a printing die, a recess above said cylinder and die formed either by a groove or a separate disc pinned to the printing cylinder shaft, a timing stop located in said recess at or past the centre of the printing cylinder and impression cylinder, an impression cylinder carrying a belt, a recess above said cylinder and belt formed either by a groove or a separate disc pinned to the impression cylinder shaft, the one end of letter trip d^6 located in the last mentioned recess. 10th. In a mail marking machine, the combination of a hopper, a carrying belt therein, a letter-retaining and automatic-releasing timing clamp, and means for operating said clamp, an arm having one end pivoted flexibly to the hopper and the other end slotted and extending into a recess above the cylinder which carries a printing die; the slotted end of said arm moves past the letter trip when no letter is between said arm and letter trip, when a letter is between them the letter trip is depressed by the movement of said arm, said recess is formed either by a groove or disc pinned to the said cylinder shaft; an impression cylinder carrying a belt, a recess above said cylinder and belt formed either by a groove or separate disc pinned to the said impression cylinder shaft.

CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO THE FOLLOWING PATENTS.

4514. JAMES KNOX, 2nd term of No. 37,739, from the 6th November, 1896. Looms or Machines for weaving or making fishing nets, etc., October 1st, 1896.

4515. UBEL WIERDA, 2nd term of No. 37,759, from the 10th November, 1896. Skate, October 2nd, 1896.

4516. ROBERT WALN DRINKER, 2nd term of No. 37,554, from the 7th October, 1896. Car Mover, October 2nd, 1896.

4517. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 37,540, from the 5th October, 1896. Car Heating Apparatus, October 3rd, 1896.

4518. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 37,638, from the 7th October, 1896. Water Heater, October 3rd, 1896.

4519. JOHN KENNEDY, 2nd term of No. 37,568, from the 10th October, 1896. Boom Dipper Dredge, October 5th, 1896.

4520. EDWARD PARTINGTON, 2nd term of No. 37,579, from the 12th October, 1896. Apparatus for separating or disintegrating fibres in the manufacture of paper pulp, October 6th, 1896.

4521. MICHAEL McGUIRE, 2nd term of No. 37,574, from the 12th October, 1896. Stove Pipe Thimble, October 7th, 1896.

4522. RICHARD JUDSON DOYLE, 2nd term of No. 37,617, from the 16th October, 1896. Fire Proof Cement, October 8th, 1896.

4523. JAMES RUSSELL PARSONS, 3rd term of No. 25,102, from the 11th October, 1896. Wheel for Vehicles, etc., October 9th, 1896.

4524. GEORGE PLINY FULLER, 3rd term of No. 25,202, from the 25th October, 1896. Perforated Washboard, October 14th, 1896.

4525. WILLIAM COLEMAN, 2nd term of No. 38,011, from the 26th December, 1896. Journal bearing lubricator, October 14th, 1896.

4526. JOHN THOMPSON SMITH, 2nd term of No. 37,664, from the 23rd October, 1896. Packing, October 15th, 1896.

4527. THE METALLIC ROOFING COMPANY OF CANADA, (assignee), 2nd term of No. 37,628, from the 16th October, 1896. Metallic Lathing, October 15th, 1896.

4528. THE METALLIC ROOFING COMPANY OF CANADA, (assignee), 2nd term of No. 37,629, from the 16th October, 1896. Metallic Lathing, October 15th, 1896.

4529. WARREN CURTIS, 3rd term of No. 25,184, from the 22nd October, 1896. Block Presser for Paper Pulp Mills, October 16th, 1896.

4530. WARREN CURTIS, 3rd term of No. 25,186, from the 23rd October, 1896. Block Presser for Paper Pulp Mills, October 16th, 1896.

4531. HERMANN POPE AND WILHELM HENNEBERG, 2nd term of No. 38,236, from the 16th February, 1897. Means for dry separation of materials of different specific weight and size, October 19th, 1896.

4532. CHARLES MYERS AND MATHEW WELLS, 2nd term of No. 37,791, from the 14th November, 1896. Screw Propeller, October 19th, 1896.

4533. WILLIAM S. ROSS, 2nd term of No. 37,667, from the 23rd October, 1896. Sanitary Closet, October 22nd, 1896.

4534. RODRIQUE COLLERET, 2nd terme du n° 37,670, du 23 octobre 1896. Echelle de sauvetage, 22 octobre 1896.

4535. JOHN STUART CROTTY, 2nd term of No. 37,728, from the 4th November, 1896. Corset, October 22nd, 1896.

4536. SAMUEL MISFIELD AND WILLIAM HEWES OLIPHANT, 2nd term of No. 37,710, from the 2nd November, 1896. Thill Coupling, October 31st, 1896.

TRADE-MARKS

Registered during the month of October, 1896, at the Department of Agriculture—Copyright and Trade-Mark Branch.

5761. SIMON SNYDER, Waterloo, Ont. A Granular Preparation known as Celery Seltzer, 5th October, 1896.

5762. SIMON SNYDER, Waterloo, Ont. Cough Lozenges, 5th October, 1896.

5763. SIMON SNYDER, Waterloo, Ont. A Medical Preparation, 5th October, 1896.

5764. MANITOBA AND NORTH-WEST MILLERS' ASSOCIATION, Winnipeg, Man. Flour, 6th October, 1896.

5765. GEORGE A. SIMARD, North Adams, Massachusetts, U.S.A. A Remedy for Female Complaints, 6th October, 1896.

5766. HENRY JAMES HILL, Toronto, Ont. Machine for exhibiting photographic pictures in motion, 6th October, 1896.

5767. HENRY IEVERS, Quebec, Que. A Medical Compound used as a surgical dressing for healing wounds, relieving pain and reducing inflammation, in Animals, 9th October, 1896.

5768. JOHN PALMER, Fredericton, N.B. Leathers, Shoe-packs and Moccasins, 12th October, 1896.

5769. VICTORIA DATE COMPANY, LIMITED, Victoria Works, Belvedere Road, Lambeth, London, England. General Trade-Mark, 15th October, 1896.

5770. THE INTERNATIONAL WATER AND SEWAGE PURIFICATION COMPANY, LIMITED, Westminster, England. Filtering Materials, 15th October, 1896.

5771. THE REMINGTON ARMS COMPANY, Ilion, New York, U.S.A. Cycles and parts thereof, 16th October, 1896.

5772. FRANK W. DIMOCK, Ottawa, Ont. Cut Tobaccos and Cigarettes, 17th October, 1896.

5773. GEORGE A. ALLAN, Brockville, Ont. A Medicinal Preparation, 17th October, 1896.

5774. JEAN ANTOINE EMILE GAUVIN, Montréal, Qué. Une préparation médicale pour la guérison des coliques, de la diarrhée, de la dyssenterie, de la toux, de l'insomnie, etc., 17 octobre 1896.

5775. } HORLICK'S FOOD COMPANY, Racine, Wisconsin, U.S.A. Food Pre-
5776. } parations, 20th October, 1896.

5777. } THE TORONTO RUBBER SHOE MANUFACTURING COMPANY,
5778. } LIMITED, Toronto, Ont. Rubber Boots and Shoes, 21st October, 1896.

5779. HENRI D. BARRY, Québec, Qué. Cigares, 21 octobre 1896.

5780. BISSELL CARPET SWEEPER COMPANY, Grand Rapids, Michigan, U.S.A. Carpet Sweepers, 23rd October, 1896.

5781. PAUL DUTOICT AND COMPANY, Brussels, Kingdom of Belgium. Corsets, 24th October, 1896.

5782. THE GEO. E. TUCKETT AND SON COMPANY, LIMITED, Hamilton, Ont. Cigarettes, 28th October, 1896.

5783. GEORGE HOPE BERTRAM, Toronto, Ont. Bicycles, 28th October, 1896.

5784. THE AMERICAN TOBACCO COMPANY, Newark, New Jersey, U.S.A. Manufactured Tobacco including Cigars and Cigarettes, 29th October, 1896.

5785. } EMILY SAXLEHNER, trading under the firm name of ANDREAS SAX-
5786. } LEHNER, at No. 3 Andrassy utcza, Budapest, Austria-Hungary.
5787. } Natural Mineral Waters, their Salts, and medicinal preparations
5788. } dry and liquid containing said waters and salts, 31st October, 1896.

COPYRIGHTS

Entered during the month of October, 1896, at the Department of Agriculture—Copyright and Trade-Mark Branch.

8755. ELEMENTARY GREEK PROSE COMPOSITION. With exercises based on Xenophon, Anabasis, B.I., Ch. I-VIII. By J. Fletcher, M.A., LL. D., and A. B. Nicholson, B.A. The Copp, Clark Co., Ltd., Toronto, Ont., 2nd October, 1896.

8756. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 3RD OCTOBER, 1896. The Mail Printing Co., Toronto, Ont., 3rd October, 1896.

8757. QUICK AND QUIET WORK CARDS IN ARITHMETIC AND GEOGRAPHY. (Package No. 1.) The Copp, Clark Co., Ltd., Toronto, Ont., 5th October, 1896.

8758. THREE PER CENT INTEREST TABLE. (Card.) Charles A. Crosbie, Simcoe, Ont., 5th October, 1896.

8759. A FAREWELL TO IRELAND. Words by David Battle. Music by Helen M. Moore. David Battle, Thorold, Ont., 5th October, 1896.

8760. NOW I'M ONLY A TRAMP, or NOW HE'S ONLY A TRAMP. (Descriptive Waltz Song.) Words and Music by Wilfred C. Traher, London, Ont., 6th October, 1896.

8761. CANADIAN CATALOGUE OF BOOKS. (Part I.) By W. R. Haight, Toronto, Ont., 8th October, 1896.

8762. POCKET LIST OF SAFFORD RADIATORS. The Toronto Radiator Manufacturing Co., Ltd., Toronto, Ont., 8th October, 1896.

8763. OUR LAND. (Song.) Music by W. T. S. Hewitt. J. L. Orme & Son, Ottawa Ont., 8th October, 1896.

8764. STATEMENT OF GRAIN THRESHED. R. D. Richardson & Co., Winnipeg, Man., 9th October, 1896.

8765. ZANZIBAR MARCH. For Piano. By Ludwig Waizmann. R. C. W. Lett, Ottawa, Ont., 9th October, 1896.

8766. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 10TH OCTOBER, 1896. The Mail Printing Co., Toronto, Ont., 10th October, 1896.

8767. CALL JEHOVAH THY SALVATION. (Anthem, Quintette, Quartette and Chorus.) By T. C. Jeffers, Mus. Bac. Whaley, Royce & Co., Toronto, Ont., 10th October, 1896.

8768. THE HOUSE OF CLERGY AND LAITY OF THE GENERAL SYNOD OF THE DOMINION OF CANADA, held in St. John's College, Winnipeg, September, 1896. (Photo.) Frank Wootten, Toronto, Ont., 10th October, 1896.

8769. THE GLASS OF FASHION. (November, 1896.) The Butterick Publishing Co., Ltd., New York, N.Y., U.S.A., 12th October, 1896.

8770. THE DELINEATOR. A Journal of Fashion, Culture and Fine Arts. (November, 1896.) The Butterick Publishing Co., Ltd., New York, N.Y., U.S.A., 12th October, 1896.

8771. MASSEY'S MAGAZINE. (October, 1896.) The Massey Press, Toronto, Ont., 12th October, 1896.

8772. MINUET IN A. By I. J. Paderewski. Willcocks & Co., Ltd., London, England, 12th October, 1896.

8773. PANORAMIC VIEW OF MONTREAL. (Photo.) Wm. Notman & Son, Montreal, Que., 12th October, 1896.

8774. MINE SPIRITUELLE; ou, MANUEL COMPLET DES CONGRÉGANISTES. J. A. Langlais & fils, Québec, Que., 12 octobre 1896.

8775. MACCALLUM'S PROGRESSIVE SCORE CARD. James J. MacCallum, Belleville, Ont., 13th October, 1896.

8776. THE CANADIAN MAGAZINE. (September, 1896.) The Ontario Publishing Co., Ltd., Toronto, Ont., 13th October, 1896.

8777. THE CANADIAN MAGAZINE. (October, 1896.) The Ontario Publishing Co., Ltd., Toronto, Ont., 13th October, 1896.

8778. ROWLEY'S UNIQUE CHRISTMAS CARD. O. R. Rowley, Hamilton, Ont., 14th October, 1896.

8779. THE MUNICIPAL ACT, CONSOLIDATED, CONDENSED, CLASSIFIED. (Text Book for the Municipal Law School, Toronto.) By Arthur L. Willson, B.A., Toronto, Ont., 14th October, 1896.

8780. RECEPTION OF LI HUNG CHANG, AT VANCOUVER, BRITISH COLUMBIA. (Photo marked A.) J. W. Jones, Vancouver, B.C., 14th October, 1896.

8781. RECEPTION OF LI HUNG CHANG, AT VANCOUVER, BRITISH COLUMBIA. (Photo marked B.) J. W. Jones, Vancouver, B.C., 14th October, 1896.

8782. RECEPTION OF LI HUNG CHANG, AT VANCOUVER, BRITISH COLUMBIA, SHOWING THE VICEROY IN UPPER CORNER. (Photo.) J. W. Jones, Vancouver, B.C., 14th October, 1896.

8783. ARCH ERECTED IN HONOUR OF LI HUNG CHANG, AT VANCOUVER, BRITISH COLUMBIA. (Photo.) J. W. Jones, Vancouver, B.C., 14th October, 1896.

8784. THE TIDE RISES, THE TIDE FALLS. (Song.) Words by H. W. Longfellow. Music by T. G. Mitcheltree. A. and S. Nordheimer, Toronto, Ont., 15th October, 1896.

8785. THE TORONTO WORLD ROSSLAND SPECIAL. Devoted to Mining, Thursday, 15th October, 1896. The World Newspaper Co., Ltd., Toronto, Ont., 15th October, 1896.

8786. QUICK AND QUIET WORK CARDS IN ARITHMETIC AND GEOGRAPHY. (Package No. 2.) The Copp, Clark Co., Ltd., Toronto, Ont., 16th October, 1896.

8787. THE JAPANESE ORACLE. Series of Cards Answering Questions for the Amusement of Social Gatherings, through the medium of certain dolls. C. Stedman Fierce, Toronto, Ont., 16th October, 1896.

8788. INSTRUCTION BOOK WITH DIAGRAM AND MEASURE BOOK OF PROFESSOR JEAN B. PEYRY'S SYSTEM METRIQUE FOR CUTTING LADIES', CHILDREN'S AND GENTLEMEN'S GARMENTS. J. B. Peyry, Montreal, Que., 16th October, 1896.

8789. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 17TH OCTOBER, 1896. The Mail Printing Co., Toronto, Ont., 17th October, 1896.

8790. QUICK AND QUIET WORK CARDS IN ARITHMETIC AND GEOGRAPHY. (Package No. 4.) The Copp, Clark Co., Ltd., Toronto, Ont., 17th October, 1896.

8791. SATISFIED. (Sacred Song.) Words by H. I. Graham. Music by Ernest A. Humphries, Toronto, Ont., 17th October, 1896.

8792. QUEEN MARGARET GAVOTTE. By R. B. Greenwood. M. F. Ruhlman, Trenton, New Jersey, U.S.A., 19th October, 1896.

8793. POCKET COMPENDIUM OF USEFUL INFORMATION. The Massey Press, Toronto, Ont., 19th October, 1896.

8794. GAGE'S BUSINESS AND SOCIAL FORMS IN VERTICAL WRITING. (Nos. 1 and 2.) By R. H. Eldon and A. C. Casselman. The W. J. Gage Co., Ltd., Toronto, Ont., 19th October, 1896.

8795. THE GOLD DOLLAR. (Dance.) By Karl Khan. W. H. Billing, Toronto, Ont., 21st October, 1896.

8796. KATE CARNEGIE AND THOSE MINISTERS. By Ian Maclaren. Hodder & Stoughton, London, England, 21st October, 1896.

8797. FOOT LAWS. Geo. T. Slater & Sons, Montreal, Que., 22nd October, 1896.

8798. LEATHER FOOD. Geo. T. Slater & Sons, Montreal, Que., 22nd October, 1896.

8799. THE SICK MAN OF LEATHERHOUSE. Geo. T. Slater & Sons, Montreal, Que., 22nd October, 1896.

8800. GEOMETRICAL DRAWING. (For the use of Schools and Colleges.) By C. H. McLeod, Ma. E., Montreal, Que., 22nd October, 1896.

8801. TELEGRAPH CODE. Montreal Rolling Mills Co., Montreal, Que., 22nd October, 1896.

8802. BAPTISM: HOW? AND FOR WHOM? By Rev. W. W. Colpitts. Wm. Briggs, Book-Steward of the Methodist Book and Publishing House, Toronto, Ont., 23rd October, 1896.

8803. THE ELITE METHOD FOR THE GUITAR. Together with a Collection of Popular and Standard Solos. Selected and arranged by Geo. F. Smedley. Whaley, Royce & Co., Toronto, Ont., 23rd October, 1896.

8804. IN THE DAYS OF THE CANADA COMPANY. The Story of the Settlement of the Huron Tract and a View of the Social Life of the Period, 1825-1850. By Robina and Kathleen Macfarlane Lizars. Kathleen Macfarlane Lizars, Kingston, Ont., 24th October, 1896.

8805. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 24TH OCTOBER, 1896. The Mail Printing Co., Toronto, Ont., 24th October, 1896.

8806. I'M YOUR GIRL. (Descriptive Song.) Words and Music by C. J. Reeves. Whaley, Royce & Co., Toronto, Ont., 24th October, 1896.

8807. YOU AND CANOE. (Song.) Words and Music by M. de S. Wedd. Whaley, Royce & Co., Toronto, Ont., 24th October, 1896.

8808. QUICK AND QUIET WORK CARDS IN ARITHMETIC AND GEOGRAPHY. (Package No. 3.) The Copp, Clark Co., Ltd., Toronto, Ont., 24th October, 1896.

8809. HELPS TO THE STUDY OF THE BIBLE. Henry Frowde, London, England, 26th October, 1896.

8810. BIBLE ILLUSTRATIONS. Henry Frowde, London, England, 26th October, 1896.

8811. THE LAW OF LANDLORD AND TENANT IN THE PROVINCE OF QUEBEC. (Exclusive of Farm Leases.) By F. Longueville Snow, Montreal, Que., 26th October, 1896.

8812. EXCELSIOR RHYMING A B C BOOK, ILLUSTRATED. Wells & Richardson Co., Montreal, Que., 28th October, 1896.

8813. CIRCUS DAY. (Painting) J. R. Seavey, Hamilton, Ont., 28th October, 1896.

8814. BE YOUR OWN LAWYER. Being in Concise Form the Mercantile or Business Laws of Canada. By a Barrister-at-Law. William Henry Anger, Toronto, Ont., 29th October, 1896.

8815. A PORTRAIT OF SIR FRANK SMITH. (As per photographic illustration.) William Thomson Freeland, Toronto, Ont., 30th October, 1896.

8816. LA CONVERSION DE ST. HUBERT. (Tableau à l'huile.) Eva Renaud, Montréal, Qué., 30 octobre 1896.

8817. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 31ST OCTOBER, 1896. The Mail Printing Co., Toronto, Ont., 31st October, 1896.

8818. THE LIFE OF JESUS CHRIST. By James Stalker, D.D. T. & T. Clark, Edinburgh, Scotland, 31st October, 1896.

8819. THE LIFE OF ST. PAUL. By James Stalker, D.D. T. & T. Clark, Edinburgh, Scotland, 31st October, 1896.