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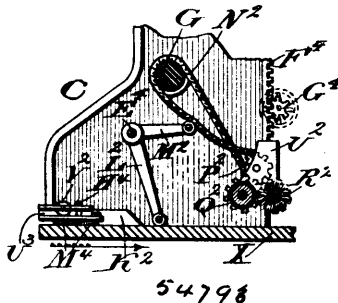
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INVENTIONS PATENTED.

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

No. 54,793. Die Printing System.

(Système d'imprimerie.)



The Steen Stamping Press Company of Philadelphia, assignee of Samuel Steen, all of Philadelphia, Pennsylvania, U.S.A., 1st February, 1897; 6 years. (Filed 16th May, 1895.)

Claim.—1st. A printing press having a die, mechanism for actuating and inking the latter, separate mechanism for wiping out the deep parts of said die, a surface wiper, a plunger and means for actuating the same. 2nd. In a press, a plunger, means for actuating the same, a table carrying a die thereon, a block attached to said table, ways for said block, connections from the latter to a lever having one end pivoted to a fixed point, a rock arm, means for actuating the latter, and a link having one end pivotally attached to said lever, the other end of said link being detachably connected to a suitable portion of said rock arm, whereby the table actuating mechanism can be thrown out of action, so that the plunger alone is moved, substantially as described. 3rd. In a press, a table carrying a die, means for actuating said table and inking said die, a plunger, means for actuating the same, a wiper device consisting of the bars K³ suitably supported and guided, studs attached to said bars, a wiper plate moving freely on said studs and cushioned on springs above and below, means for actuating said bars, a strip of paper passed under said plate, and mechanism for actuating said paper, substantially as described. 4th. In a press, a table carrying a die, a colour box and a roll therein, an inking roll suitably journaled above said die, means for actuating said table, and mechanism whereby said last mentioned roll is driven only when taking colour, and is allowed to run free when passing over said die, said mechanism consisting of a belt normally loose, which extends from a source of power to a suitable portion of said roll, a belt tightener and a

cam on said table which contacts with the tightener at proper intervals, a plunger, means for actuating the same, and a wiper, said parts being combined substantially as described. 5th. In a press, a table carrying a die, and a colour box having a roll or rolls therein, a roll and a wiping-out brush suitably journaled above said die, means for actuating said table and wiping-out brush, and mechanism whereby said last mentioned roll is driven only when taking colour, a plunger, means for actuating the same, and a wiper, substantially as described. 6th. In a press, a table carrying a die, and a colour box, the latter being adapted to contain a roll and a doctor blade, an inking device suitably supported above said die, means for adjusting said inking device and actuating said die, mechanism whereby said inking device is driven only when taking colour, the same consisting of a belt normally loose leading from a source of power and communicating motion to said inking device, a cam on said table and a belt tightener intermediate of said cam and belt, an impression device and a wiper, said parts being combined substantially as described. 7th. In a press, a table carrying a die and a colour box adapted to contain a roll and a scraper, an inking device and a device for wiping out the deep parts of said die, suitably supported above the latter, means for actuating said table and said wiping-out device, and mechanism for driving said inking device when taking colour, the same consisting of a belt leading from a source of power to suitable gearing, which actuates the ink roll, a cam attached to said table, a bell crank pivotally supported intermediate said cam and belt, and having one arm contacting with the latter, and the other adapted to be struck by said cam at proper intervals, an impression device and a wiper, substantially as described. 8th. In a press, a table carrying a die, and a colour box having a roll and a scraper therein, an inking device and a brush for wiping out the deep parts of the die suitably supported above the latter, mechanism for actuating said table and wiping-out device, and mechanism whereby said inking device is driven only when taking colour, an impression device and a wiper, substantially as described. 9th. In a press, a table carrying a die and a colour box, an inking device, mechanism for actuating said table and inking device, an impression device and a surface wiping device, the same consisting of a suitable material passed under a plate Y¹, which latter moves freely on studs L³, attached to the bars K³, said plate being cushioned on springs above and below, a bell crank U¹ pivotally supported, and having connections from one arm to said bars K³, and connections from the other arm, which are actuated by a suitable cam, and means for imparting motion to said cam, substantially as described. 10th. In an organized press having a table, a die, an inking device, a plunger and means for actuating the above parts, a surface wiping device consisting of a roll of suitable material mounted on a shaft journaled in brackets, a tension device consisting of a split sleeve engaging said shaft, and having a projecting portion contacting with one of said brackets, a plate Y¹ under which said wiping material passes, means for actuating the latter, said plate Y¹ moving freely on studs L³ attached to bars K³ on each side of the press, pins A⁴ for guiding said bars, springs above and below said plate, and means for adjusting their tension, a bell crank pivotally mounted and having connections from one of its arms to said bars K³, and connections from the other arm to a source of power, substantially as described. 11th. In a press having an impression device, and an inking and wiping device, and means for actuating the same, a table carrying a die thereon, a block connected to said table, and guides in the ways T and U, connections from said block to the lever P, having one end pivoted to a fixed point, the link O, rock arm N, rock shaft M, arm L, connecting rod K, crank pin H, gear E, pinion F, shaft G, gear N³, pinion M³, shaft O³, and belt pulley L³, the above parts being combined substantially as described. 12th. In an organized press, a table having a die thereon, a plunger, a guide

therefor, means for actuating said plunger consisting of the arms A^1 , A^1 , pivotally connected to each other and to an end of the forked lever P^1 , a depending horse-shoe L^1 suitably supported and having its arms pivotally secured to the prongs of said lever, a roller Y^3 , and the elongated pin V^3 , the inside and outside cams Q^3 and K^1 , and means for actuating the same, the outer extremities of said arms A^1 being secured to the aforesaid plunger and to an adjusting device, the above parts being combined substantially as described.

13th. In a press, a table carrying a die, an inking device and a wiper, means for actuating the above parts, a plunger, mechanism for actuating the same, consisting of outside and inside cams, the pin V^3 , the forked lever P^1 and the depending horse-shoe L^1 , the arms A^1 having their inner ends pivoted to each other and to the lever P^1 , while their outer ends are attached to the plunger and bolt F^1 , respectively, the latter passing through the top of the press, and being adjustably held in position by the nuts G^1 and H^1 , the above parts being combined as described.

14th. In a press, a frame, a table having a die thereon, an inking device therefor, a wiper, a plunger, mechanism for actuating the same consisting of a system of toggle levers, and inside and outside cams which engage suitable portions of said system of toggle levers, a threaded bolt P^1 to which one of the levers of said system is pivotally attached, said bolts passing through the top of the frame Z , and having the nuts G^1 and H^1 engaging its threaded portion on either side of the frame, whereby the stroke of the plunger may be readily adjusted, substantially as described.

15th. In a press, a table carrying a colour box, a die and a cam, means for actuating said table, an inking roll or rolls mounted in suitable journals, a belt for driving the same normally loose, and adapted to be tightened when the rolls are passing over said colour box, a tightener for said belt, moved at proper intervals by said cam, whereby said rolls are driven only when taking colour, and are allowed to run free over said die, a wiper and impression devices, substantially as described.

16th. In a press, a table carrying thereon a colour box and a die, an impression device, an inking device, a wiper, means for actuating the same comprising a rack on said table, a shaft suitably journaled and having a cog wheel, ratchet and pawl attachment and a cone pulley thereon, a belt encircling said pulley, and a second cone pulley whose shaft carries a spool upon which the wiping material is wound after use, a belt shifter engaging said belt, a wiper plate under which said wiping material passes, said plate resting on springs above and below, which are held in position by studs mounted on bars suitably guided, and means for moving said bars, the above parts being combined substantially as described.

17th. In a press, a table carrying thereon a die, means for actuating said table, an inking device, an impression device, a wiper, means for actuating the same comprising a rack on said table, a shaft provided with a suitable bearing, and having a cog wheel, a ratchet and pawl attachment, and a cone pulley thereon, and a band connecting said pulley with another cone pulley whose shaft carries a spool upon which the wiper is wound after use, a movable plate cushioned on springs above and below, under which plate said wiper is passed, a tension device for keeping the wiper taut, consisting of a split sleeve encircling the shaft from which the wiper is unwound, said sleeve having a portion thereof contacting with said fixed point, substantially as described.

18th. In a press, a table-carrying thereon a die, an inking device for the latter, a wiping-out brush for removing all but a thin film from the deep parts of the die, a surface wiper, means for actuating the same consisting of a rack on said table, a shaft suitably journaled and having a cog wheel, a ratchet and pawl attachment and a cone pulley thereon, a band connecting said pulley with another cone pulley whose shaft carries a spool upon which the wiper is wound after use, the above parts being combined substantially as described.

19th. An organized press for die printing, embossing, etc., having a wiping-out device whose sole function is to remove all but a thin film of ink from the deep parts of the die, substantially as described.

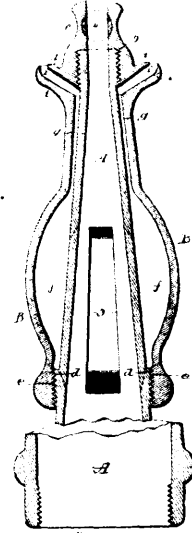
20th. An organized press having a table carrying a die thereon, means for actuating said table, an inking device, an impression device, a surface wiper, a separate wiping-out device, whereby all but a thin film of colour is removed from the deepest parts of the die, said parts being combined substantially as described.

No. 54,794. Nozzle. (Lance de bonaux.)

William A. Swift and William W. Stewart, both of Columbus, Georgia, U.S.A., 1st February, 1897; 6 years. (Filed 8th November, 1895.)

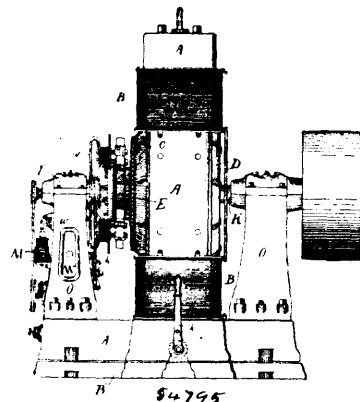
Claim.—1st. In a nozzle, the combination with a pipe or nozzle having a deflecting annular flange which extends outwardly at an angle thereto whereby to deflect water coming into contact therewith outwardly, of an adjustable ring or collar back of said flange between which and the flange a passage for water is formed, said ring or collar being of greater diameter at its outer end than the flange and extending forwardly at its extreme outer end whereby to turn the flow of water its outward direction to a straight forward course or any intermediate angle between a straight forward course and the outward lateral direction induced by the annular flange, and means for maintaining a continuous flow of water from the supply to both apertures of the nozzle, substantially as set forth. 2nd. In a nozzle, the combination with a pipe or nozzle having a screw-thread formed thereon at or near its outer end, and an outwardly deflecting annular flange screwed on this thread, of an adjustable annular ring or collar having a greater diameter at its outer end

than the flange and projecting forwardly at its outer end whereby to change the direction of the spray passing between the flange and



ring or collar from a lateral direction to a straight forward course or to an intermediate angle between the outward and forward direction, and means for maintaining a continuous flow of water from the supply to both apertures of the nozzle, substantially as set forth. 3rd. In a nozzle, the combination with a pipe or nozzle having a screw-threaded exterior, a shell surrounding the pipe or nozzle and screwed thereon whereby an annular space is formed between them, said pipe or nozzle having communicating openings for the passage of water therefrom into the space between the shell and pipe or nozzle, of an outwardly projecting flange on the outer end of the pipe or nozzle, and a ring or collar screwed on the end of the outer shell, said ring or collar being of greater diameter at its outer end than the flange and extending forwardly to deflect the water turned laterally by the flange to different angles to a straight forward direction, and means for maintaining a continuous flow of water from the supply to both apertures of the nozzle, substantially as set forth.

No. 54,795. Dynamo. (Dynamo.)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of James John Wood, Fort Wayne, Indiana, U.S.A., 1st February, 1897; 6 years. (Filed 26th December, 1895.)

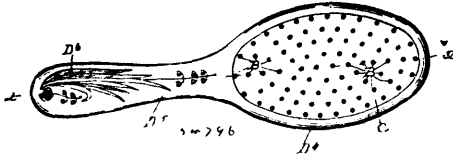
Claim.—1st. The combination in a dynamo having movable commutator brushes, of a current regulator consisting of a clutch-driven shaft f , a brush-shifting mechanism connecting said shaft to the brushes to move the latter, the driven members $N N^2$ of two clutches fixed on said shaft, driving clutch-wheels g , a continuously revolving shaft p having a pinion a^1 driving the clutch-wheel g , a secondary shaft r^1 having a pinion r driven from the shaft p and a pinion r^2 driving the other clutch-wheel i , said pinions being relatively proportioned to drive the clutch-wheel i more rapidly than the clutch-wheel g . 2nd. The combination in a dynamo having commutator brushes carried by a movable yoke, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a driven shaft, a lever geared to said shaft to be oscillated thereby, and a mechanical connector between said lever and brush yoke, by which the movement is communicated to the latter, said connector constructed to be longitudinally adjust-

able, whereby to vary the position of the brushes on the commutator. 3rd. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a driven shaft, a lever geared to said shaft to be oscillated thereby, and mechanical connectors between the opposite arms of said lever and the respective brush yokes. 4th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a driven shaft, a lever geared to said shaft to be oscillated thereby, and mechanical connectors between the opposite arms of said lever and the respective brush yokes, connected to the respective arms at different distances from the lever axis to communicate differential movements to the two yokes. 5th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a driven shaft, a lever geared to said shaft to be oscillated thereby, and two rods jointed at one end to the opposite arms of the lever and at their opposite ends to the respective brush yokes. 6th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a driven shaft, a lever geared to said shaft to be oscillated thereby, and two rods jointed at one end to the opposite arms of the lever and at their opposite ends to the respective brush yokes, and the lever constructed to admit one of the rods to be adjusted relatively to the other to varying distances from the lever axis, whereby the speed ratio of the respective yokes may be varied. 7th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a lever Q , and two rods jointed to the opposite arms of the lever and connected to the respective brush yokes, the lever constructed with a socket j in one arm for connection with the rod leading to one brush yoke, and with a slot j^1 in the opposite arm for adjustable connection with the rod leading to the other yoke. 8th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, of a current regulator consisting of an electro-motive device responding to current changes, and a brush-shifting mechanism controlled by the electro-motive device and comprising a lever Q , and two rods jointed to the opposite arms of the lever and connected to the respective brush yokes, the lever constructed, the duplicate slots in its opposite arms adapted to admit the connection of the respective rods at unequal distances from the lever axis to communicate differential movements to the yokes, while permitting the adjustment of one connection relatively to the other for varying the speed ratio of the yokes, and to admit the reversal of the connection of the rods with the respective arms, the one connected farthest from the axis being adjusted inwardly and the other outwardly to reverse the differential movements. 9th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, and a current regulator comprising an electro-motive device and brush-shifting mechanism for imparting differential movements to the respective yokes, of means for enabling the direction of rotation of the armature to be reversed at will, consisting of detachable and reversible connectors forming part of the brush-shifting mechanism, and constructed to permit the brush yokes to be disconnected and swung to opposite positions corresponding to the opposite rotation of the armature, and to be then reconnected with the brush-shifting mechanism in inverse order so as to maintain after reversal the same relative differential movements of the respective yokes. 10th. The combination in a dynamo having main and supplemental commutator brushes carried by two movable yokes, and a current regulator comprising an electro-motive device and brush-shifting mechanism for imparting differential movements to the respective yokes, of means for enabling the direction of rotation of the armature to be reversed at will, consisting of detachable arms n, n^1 connected to the respective yokes, and rods h, h^1 constituting part of the brush-shifting mechanism, and the yokes constructed to admit of the attachment of said arms to them in different positions, whereby the arms may be detached from the yokes, the yokes swung to opposite positions, and the arms reattached. 11th. In a dynamo having main and supplemental commutator brushes carried by two movable yokes, and a current regulator comprising an electro-motive device and brush-shifting mechanism for imparting differential movements to the respective yokes, the combination of the yokes H, H^1 each constructed with two screw sockets, detachable arms n, n^1 adapted to screw into either of said sockets, and filling screws V, V^1 for closing the unoccupied sockets. 12th. In a dynamo having a base and bearing pedestals mounted thereon, having bearings for the armature shaft, a current regulator for shifting the commutator brushes comprising opposite clutches and connecting gearing housed within one of said pedestals, and mechanical connections between the driven members of said clutches

and the brush yokes, carried by said pedestal. 13th. In a dynamo having a base A^1 and bearing pedestals O, O^1 mounted thereon, a current regulator for shifting the commutator brushes comprising opposite clutches housed within the pedestal O , and mechanical connections between the driven members of such clutches and the brush yokes comprising gearing and a shaft J having bearings in said pedestal, and a lever Q having a bearing upon the exterior of said pedestal. 14th. In a dynamo having a base A^1 and bearing pedestals O, O^1 mounted thereon, a current regulator for shifting the commutator brushes comprising opposite clutches housed within the pedestal O , and mechanical connections between the driven members of such clutches and the brush yokes carried by said pedestal, and a separate pedestal R within the pedestal O affording bearings for the clutches. 15th. In a dynamo having a base A^1 and bearing pedestals O, O^1 mounted thereon, a current regulator for shifting the commutator brushes, comprising shafts p and r^1 , two opposite clutches, a driven shaft f housed in the hollow pedestal O , and mechanical connections between the latter shaft and the brush yokes, and a pedestal R within the pedestal O , and providing bearings for said shafts p, r^1 and f . 16th. In a dynamo having a base A^1 and bearing pedestals O, O^1 mounted thereon, a current regulator, comprising opposite clutches and connecting gearing housed within the pedestal O , a clutch-lever I for operating said clutches also housed within said pedestal, a controlling magnet M outside the pedestal, and mechanical connections between said magnet and clutch lever passing through the pedestal. 17th. In a dynamo having a base A^1 and bearing pedestals O, O^1 mounted thereon, a current regulator, comprising opposite clutches and connecting gearing housed within the pedestal O , and a clutch-lever I for operating said clutches also housed within said pedestal, a controlling magnet outside the pedestal, and elbow-lever L passing through said pedestal, and a link l for connecting with said clutch lever. 18th. In a dynamo having a base A^1 and bearing pedestals O, O^1 mounted thereon, a current regulator, comprising opposite clutches and connecting gearing housed within the pedestal O , a clutch-lever I for operating said clutches also housed within said pedestal, a controlling magnet M mechanically connected to said clutch-lever, a retracting spring within the pedestal connected to said clutch-lever, and an adjusting device for said spring outside the pedestal. 19th. In a dynamo having a base A^1 and bearing pedestals O, O^1 , a current regulator, comprising opposite clutches and connecting gearing housed within the pedestal O , a clutch-lever I within the pedestal, a controlling magnet M outside the pedestal, mechanical connections between said magnet and lever, comprising a lever L passing through the pedestal, and a bearing block t fastened to the pedestal formed with opposite stops to limit the movement of said lever L , and formed with bearings to which said lever L is pivoted. 20th. In a dynamo, a current regulator, comprising opposite clutches and brush-shifting mechanism driven thereby, a clutch-lever I for operating said clutches, an adjustable retracting spring S controlling the magnet M , having an armature M^1 , mechanical connections between said armature and lever I , said connections comprising a lever L , and a spring pressing upwardly against said lever L to counterbalance the weight of the lever and armature. 21st. In a dynamo, the combination with a current regulator of the class wherein a shifting mechanism is connected to a source of power by the action of an electro-motive device against a retractive force, of a movable stop constructed as a hook P adapted to engage a projection t^1 connected with the electro-motive device, and thereby to resist the retractile force to hold the dynamo out of action, and unbalanced so as to fall out of engagement when the electro-motive device overcomes the retractile force. 22nd. In a dynamo, in combination with a current regulator for shifting the commutator brushes wherein the brush-shifting mechanism is controlled by an electro-magnet acting against a retractile force, a lever l connected to said magnet having a projection t^1 , a bearing block t , and a gravity hook P pivoted to said bearing block, and adapted when turned up to engage said projection. 23rd. In a dynamo, a current regulator, comprising opposite clutches, consisting each of a driving and driven part, the one constructed as a wheel with an internal coned flange and the other as a disc with an external cone fitting in said flange, said externally coned disc being formed with radial slots 13. 24th. In a dynamo having a current regulator partly housed within one of the bearing pedestals, the pedestal O constructed with opposite hand-holes combined with hand-hole covers W for closing said holes, and means for fastening them to the pedestal. 25th. In a dynamo having a current regulator partly housed within one of the bearing pedestals, the pedestal O constructed with opposite hand-holes combined with hand-hole covers W for closing said holes, each constructed with lugs g^1 projecting into the hole, and with a fastening device consisting of a bar W^2 adapted to be turned to engage the margins of the hole. 26th. In a dynamo having the armature shaft K mounted on bearing pedestals O, O^1 , the combination of the brush yokes, a concentric bearing ring a on which said yokes are mounted, and the lower half T of the bearing box on the pedestal O , to which said ring is attached independently of the bearing cap, whereby the bearing cap T^1 may be removed without disturbing the brush yokes. 27th. In a dynamo wherein the armature shaft K is supported on bearing pedestals O, O^1 , the pedestal O formed with the lower half T of the bearing box, the upper half or bearing cap T^1 thereof removably attached thereto and formed with internal ribs g , an enclosed bearing bushing in two halves U, U^1 supported within

the bearing box, and the upper half U¹ formed with its thrust collar u² cut away in line with the ribs y on the bearing cap T to admit the removal of the latter by sliding it endwise. 28th. In a dynamo having the armature shaft K mounted on bearing pedestals O, O¹, the combination of the brush yokes, a concentric bearing ring a on which said yokes are mounted, and the lower half T of the bearing-box on the pedestal O, to which said ring is attached independently of the bearing cup, whereby the bearing cup T¹ may be removed without disturbing the brush yokes, and the said ring a having the opening through it upwardly enlarged at x¹ to permit the lifting of the shaft as described. 29th. An armature comprising a wire-wound core and supporting spiders V, V¹ having their spokes formed with seats b¹ for supporting the inner surface of the core, and the respective spiders formed on their spokes with alternate projections b³ and recesses b⁴, the projections of each fitting into the recesses of the other, and thereby breaking joints to prevent the wires of the core falling into the space or joint between the spiders.

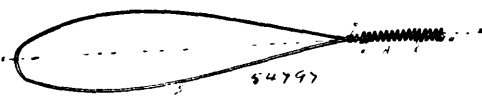
No. 54,796. Brush. (Brosse.)



Emma Morrison, assignee of William Morrison, both of Lansingburg, New York, U.S.A., 1st February, 1897; 6 years. (Filed 27th May, 1896.)

Claim.—1st. In a brush, the combination with a back having an undercut recess in its face, of a bristle-supporting block formed of plastic material expanded edgewise in the recess by pressure, whereby it is secured to the back, substantially as described. 2nd. The herein described method of making brushes which consists in compressing a bristle-supporting block within a recess in the face of a compressible back-blank and at the same time moulding the blank into a brush-back by pressure upon inclosing mould-sections. 3rd. The herein described method of making brushes in a mould, which consists in moulding a bristle-supporting block from plastic material around the tufts of bristles in one section of the mould, then forcing the moulded bristle-block into an undercut recess in the face of a compressible back-blank, and at the same time moulding the blank into a brush-back by pressure upon the inclosing mould sections. 4th. The herein described method of making brushes, which consists in moulding a bristle-supporting block from plastic material around tufts of bristles in one section of the mould, allowing the moulded material to harden by cooling, then softening the exposed surfaces of the moulded material by heating, and then forcing the softened portion of the bristle-block into an undercut recess in the face of a brush back. 5th. The herein described method of polishing and finishing mould-figured surfaces, which consists in applying to the mould engaging surface of the blank to be moulded a coating of varnish, and then compressing the blank in a heated mould having a figured surface. 6th. In a brush apparatus, the combination with a bristle-feeding hopper having a reticulated bottom, and mechanism for agitating the hopper, of a bristle-receiving plate having a plurality of bristle-recesses, and a stationary support for the plate below the hopper, substantially as described. 7th. In a brush apparatus, the combination with a bristle-feeding hopper having a reticulated bottom, and means for agitating the hopper, of a bristle-receiving plate having a plurality of downwardly tapering apertures and a stationary support for the plate below the hopper, substantially as described.

No. 54,797. Carpet Beater. (Baltoir à tapis.)



William C. Allen, Hoosick Falls, and Frederick E. Church, Shushan, both in New York State, U.S.A., 1st February, 1897; 6 years. (Filed 29th June, 1896.)

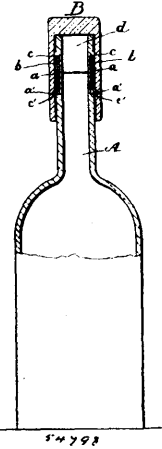
Claim.—As a new article of manufacture, a carpet beater made from a single length of wire, the same comprising a handle A, a flexible loop B, a shank C within said handle, said handle formed of a coil, said coil drawn tightly at the inner end of the handle and around the parallel strands of wire, substantially as shown and described.

No. 54,798. Bottle. (Bouteille.)

William T. McLachlan and John Henry Green, both of Laurium, Michigan, U.S.A., 1st February, 1897; 6 years. (Filed 30th May, 1896.)

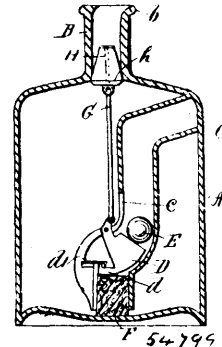
Claim.—1st. A bottle having a neck upon which is an annular grooved recess and a resilient metal collar with resilient flaring tongues formed integrally therein; and a cap fitting over the neck of said bottle having in its inner surface an annular groove adapted to

engage with the flaring tongues of said collar and hold the parts in permanent engagement, substantially as shown and described.



2nd. The combination in a bottle, of a tubular cap with inner annular groove and a resilient collar with resilient flaring tongues integrally formed therein, the said collar adapted to be held within a grooved recess in the neck of the bottle, and the flaring tongues to engage with the annular groove in the cap when same is pushed downwardly over the neck of the bottle, substantially as shown and described. 3rd. The combination in a cap for the neck of a bottle comprising a neck with grooved annular recess, a resilient collar with resilient flaring tongues, and a tubular cap with an inner annular groove adapted to engage with said flaring tongues, substantially as shown and described.

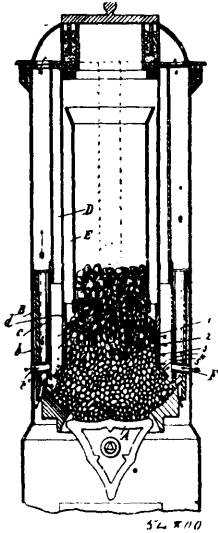
No. 54,799. Bottle. (Bouteille.)



Louis Charles Werner, Broad Brook, Connecticut, U.S.A., 1st February, 1897; 6 years. (Filed 19th May, 1896.)

Claim.—1st. A non-refillable bottle provided with mechanically operated valve and one or more floatable spherical bodies or balls adapted to operate in connection with the said mechanical elements to lock the valve in position, when the contents of the bottles shall have been discharged substantially as described. 2nd. A non-refillable bottle in the neck of which is formed an annular valve seat and having a chamber or compartment connected therewith, within which is mounted a lever or rod valve adapted to close the neck of the bottle and rest upon said valve seat and having connection with said rod or lever and floatable ball or balls within said compartment adapted to operate in connection with said rod or lever to lock the valve in position, substantially as described. 3rd. The combination in a non-refillable bottle the neck of which is provided with an inclined valve seat of a frustro-conical valve adapted to engage said seat, a rod or lever mounted within said bottle provided with an enlargement or head, said bottle being provided with a compartment formed thereon or connected therewith in which said enlargement or head is adapted to operate, connection between the said valve and said rod or lever and a floatable ball or balls within said compartment adapted to operate in connection with said rod or lever to lock the valve in a closed position, substantially as and for the purpose set forth. 4th. The combination with a non-refillable bottle the neck of which is provided with an inclined valve seat and which has formed on or connected therewith an enclosed compartment provided with an opening or aperture therein, of a rod or lever movably mounted within said aperture and provided upon the end thereof within said compartment and adapted to operate in connection with the enlargement or head of said lever or rod to lock said enlargement or head in position and set the valve, substantially as described.

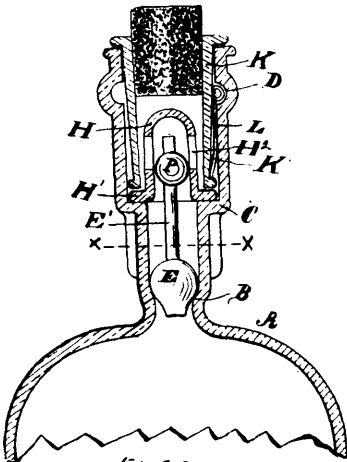
No. 54,800. Stove or Furnace. (Poêle et fournaise.)



Franz C. Bormann, No. 19 Steintwiete, Hamburg, German Empire, 1st February, 1897; 6 years. (Filed 4th August, 1896.)

Claim.—1st. A stove or furnace in which the gases of combustion containing unconsumed particles are led back into the fuel mixed with fresh air containing oxygen, and after passing through the fuel are led below the admission orifices for the fresh air to the chimney flue whereby complete combustion is effected. 2nd. A stove or furnace consisting of two concentric channels D, E, of which the inner one, E, leads the gases containing the unconsumed particles back into the fuel, and in which they mix with fresh air, which enters through air-admission orifices F, the channel D and orifices 1, 2, 3, 4, 5 therein and escape after complete combustion through the exit channel B, C to the outside. 3rd. In a stove or furnace as claimed in claims 1 and 2, a horizontal partition *d*² provided in the channel D, so that the admission of fresh air can only take place through the orifices 1, 2, 3 and the escape of the completely spent gases of combustion takes place under admixture with fresh air entering through the orifices *d*³ through the orifices 4, 5, 6 and 7 to the exit channel B C.

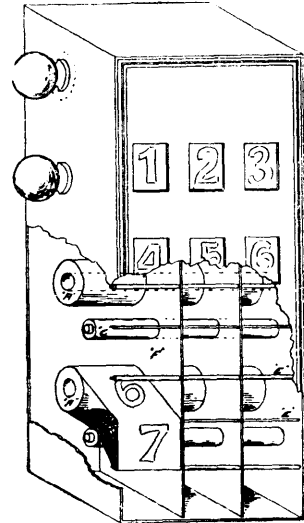
No. 54,801. Bottle Stopper. (Bouchon de bouteille.)



John Goettel, Boston, Massachusetts, U.S.A., 1st February, 1897; 6 years. (Filed 3rd September, 1896.)

Claim.—1st. A bottle having a contracted neck to form a valve seat, and provided with flutings immediately above said valve seat, a valve adapted to fit the said valve seat and having a stem extending upward into a thimble, a thimble having openings, and a ball adapted to limit the motion of the said valve and to act as a second valve, a cylindrical locking piece K secured by locking springs L fitting onto the said thimble, substantially as set forth. 2nd. In a bottle stopper the combination with the thimble H having a flange H¹ on its lower edge and openings H² in its sides, of the cylindrical locking piece K, having its sides recessed, the said cylindrical locking piece resting on the aforesaid flange H¹ of the thimble H; and the locking springs L, having loops 1 at their upper ends adapted to enter an annular recess formed in the neck of the bottle, the shanks of the said springs L engaging the recessed portion of the said locking piece K, substantially as set forth, and for the purpose specified.

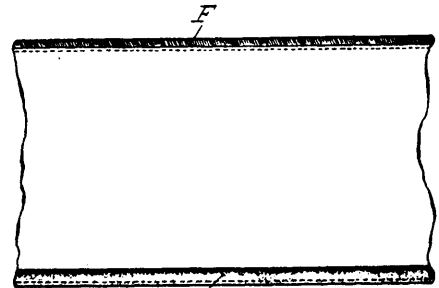
No. 54,802. Hymn Indicator. (Indicateur d'hymnes.)



Thomas Boxall and Benjamin Boxall, both of Woodstock, Ontario, Canada, 1st February, 1897; 6 years. (Filed 11th September, 1896.)

Claim.—The continuous shaft fitted with pins which when pushed in or out engages the three sets of rollers and allows their being turned backwards and forwards by means of the one shaft, all substantially as set forth.

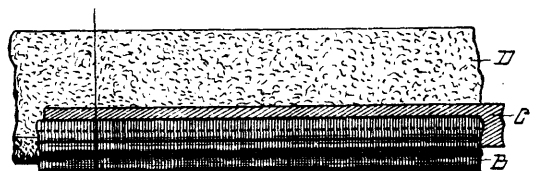
No. 54,803. Dress Facing and Skirt Binding System. (Revers de robes et système de bordure de jupes.)



Aaron M. Weber, Oshkosh, Wisconsin, U.S.A., 1st February, 1897; 6 years. (Filed 21st September, 1896.)

Claim.—1st. A combined dress facing and binding comprising a facing-strip of bias-cut water-proofed cloth having along its outer face at the lower edge a longitudinally-folded bias-cut water-proofed binding, said binding being secured to the facing with its free edges flush with lower edge thereof, as set forth. 2nd. A combined dress facing and binding comprising a facing-strip of bias-cut water-proofed cloth having along its outer face at the lower edge a longitudinally-folded bias-cut water-proofed binding, said binding being secured to the facing with its free edges flush with the lower edge thereof, said facing having along its inner face at the upper edge a narrow tape, said tape projecting above the edge of the facing, as set forth.

No. 54,804. Skirt Binding. (Bordure de jupes.)

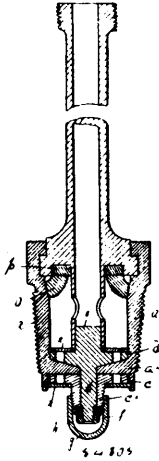


Aaron M. Weber, Oshkosh, Wisconsin, U.S.A., 1st February, 1897; 6 years. (Filed 21st September, 1896.)

Claim.—A skirt-binding, comprising a strip of dress-goods covered on one face with water-proof material, said strip being folded longi-

gradually to bring the water-proof material to the inner side, and a non-elastic reinforcing-tape secured between the edges of the strip to prevent stretching thereof, and an attaching strip or facing secured to one of the outer faces of said folded strip, as set forth.

No. 54,805. Bung. (Bondon.)



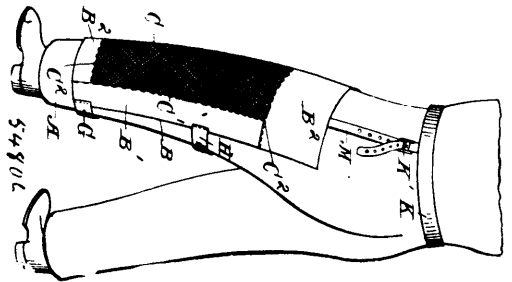
Dillon Beebe, Newark, New Jersey, U.S.A., 1st February, 1897; 6 years. (Filed 13th October, 1896.)

Claim.—1st. The combination with the bung body having an interior valve seat and a valve arranged at the upper outer side thereof, and adapted to be turned thereon to open or close the bung, of a plate *k*, covering and protecting the opening in the said outer valve from outside interference and dirt, substantially as set forth. 2nd. The combination with the bung body, having interiorly inclined faucet bearings and a valve seat, a valve having outflow passages or ports and a transverse plate, secured at its opposite ends to the interior of the bung body, and adapted to cover the ports of the valve when the latter is closed, substantially as set forth. 3rd. The combination with the bung body having a valve seat and an interior valve arranged on the inner side of said valve seat, and a covering plate fixed to the bung body and covering the closed valve passage and preventing the entrance of pitch or similar coating material when the barrel to which the bung is applied is being rendered impermeable by such coating material, substantially as set forth. 4th. The combination with the bung body having a valve seat, a valve having ports and a central projection or extension of a centrally perforated protecting plate to cover said ports and allow a passage for the centre part of the valve, substantially as set forth. 5th. The combination with the bung body having a valve seat and a valve lying against the outside of said seat, said bung body being interiorly recessed, of a transverse protecting plate having its ends in the recesses of said body and its face covering the ports in the valve when the valve is closed, substantially as set forth. 6th. The improved faucet bung herein described comprising the bung body exteriorly threaded and interiorly provided with inclined bearings *a*¹¹¹, and a valve seat *a*¹¹, disc valve arranged on opposite sides of said valve seat and held against the same by a nut *f*, the forward valve seat having a projection *e*, and a transverse protecting plate for covering the ports of the interior disc valve, all combined substantially as set forth. 7th. The improved faucet bung herein described comprising a bung body having interior inclined bearings for the faucet key and a valve seat, disc valves arranged on opposite sides of said seat, with ports exteriorly and interiorly exposed, and plates *k*, *k*¹, against the interior and exterior faces of said valves for covering said exposed ports, substantially as set forth. 8th. The combination with the body having a valve seat having ports, a seat for the faucet key and means for fastening said faucet key upon said bung body, a valve engaging said valve seat and a hub-like projection central to said valve and means for actuating said valve by the faucet key and means for holding said valve to its seat, and a protecting plate lying against the valve and centrally perforated to provide for the hub-like projection and covering the ports in the valve to protect the same when closed, substantially as set forth. 9th. The improved faucet bung comprising the body portion having a valve seat and faucet seat, an inner and an outer valve and means for holding each to the valve seat, a strainer covering the inner valve and a cap secured to the hub of the inner valve and holding said strainer in place and covering said holding means, all combined substantially as set forth. 10th. The combination in a faucet bung with the bung body portion adapted to be fastened into the bung hole of the barrel, and having a key seat and valve seat, of a valve disc *d*, having the hub *e*¹, and projection *e*, a valve disc *c*, arranged on the hub *e*¹, and having a hub *e*¹, and a cap covering the end of the hub *e*¹, and fastened to the hub *e*¹, substantially as set forth. 11th. The combination in a faucet bung with the bung body portion adapted to be fastened into the bung hole of a barrel and having a key seat and valve seat, of a valve disc *d*, having the hub *e*¹, and a projection *e*, a valve disc *c*, arranged on the hub *e*¹, and having the hub *e*¹,

a nut *f*, spring washer *h*, and a cap *g*, enclosing said nut and washer and fastened to said hub *e*¹, substantially as set forth. 12th. The combination with the faucet bung body having the interior grooves to receive the faucet lugs *r*¹¹¹, a valve seat and a valve having means to receive the key faucet, of a flushing key comprising a collar adapted to be set into the said bung body and having peripheral ridges corresponding with and extending into said interior grooves and having forward stop projections *r*¹¹¹, corresponding with said ridges and handled key shank working in said collar and having an integral flange or shoulder *q*¹, having at its periphery a lateral projection *w*, limited in its oscillating movements by the forward projections *r*¹¹¹, and means for holding the collar and shank in operative relation, substantially as set forth.

No. 54,806. Leg Shield for Firemen.

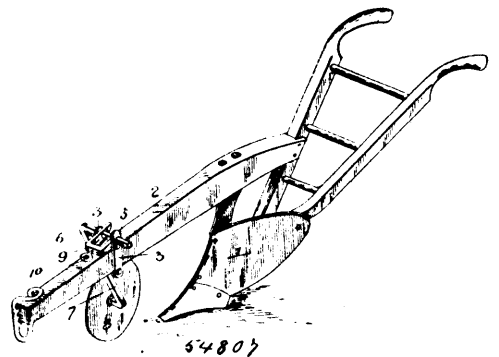
(Protecteur de jambes pour chauffeurs de locomotives.)



Adelbert Noice and Ralph C. Shepard, assignees of Edward A. Gray, all of Collingwood, Ohio, U.S.A., 1st February, 1897; 6 years. (Filed 7th October, 1896.)

Claim.—1st. A leg-shield for a locomotive fireman, consisting of a sheet of heat-resisting material attached to the forward or outer side of an apron provided with devices for holding it to the fireman's left leg, substantially as and for the purpose set forth. 2nd. A leg-shield for a locomotive fireman, comprising a sheet of asbestos-cloth provided with devices for holding it to the fireman's left leg, substantially as and for the purposes set forth. 3rd. A leg-shield for a locomotive fireman, consisting of a sheet composed of heat-resisting material suitably arranged upon and attached to the forward or outer side of an apron that is provided with devices for suspending it from the fireman's body and holding it to the left leg of the fireman, substantially as set forth. 4th. A leg-shield for a locomotive fireman, consisting of a sheet composed of heat-resisting material, and an apron arranged at the rear side of and larger than said sheet and folded forwardly at different points to and somewhat overlapping the heat-resisting sheet, and having said sheet stitched or sewed to said overlapping portions and rear or main portion of the apron, substantially as shown and described. 5th. A leg-shield for a locomotive fireman, consisting of the apron *B* having the folds *B*¹ *B*² *B*², the heat-resisting sheet *C* stitched or sewed to the apron at *C*¹ *C*¹ *C*² *C*², the bands or straps *G* and *H*, and the devices for suspending the shield from the fireman's body, substantially as shown and described.

No. 54,807. Plough Fender. (Défense de charrue.)

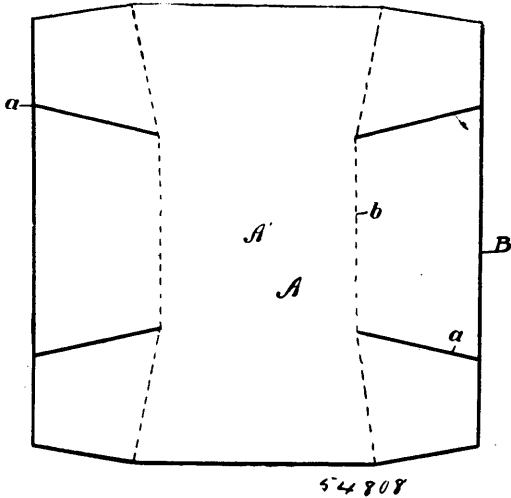


John H. Frost, Calera, Alabama, U.S.A., 1st February, 1897; 6 years. (Filed 15th October, 1896.)

Claim.—1st. The combination with clamping plates, having at their upper ends apertures, a crank spindle journaled in said apertures and provided with a rotary disc, a bail journaled on said crank spindle between the upper ends of said clamping plates, a set screw working through the bail to clamp the crank spindle in lateral adjustment and to prevent of its rocking movement, substantially as set forth. 2nd. The combination with a plough beam, of clamping plates connected therewith to be adjusted longitudinally thereto and provided with apertures in their upper ends, a crank spindle journaled in said apertures and provided at its free end with a rotary disc, a ball journaled on said crank spindle and

located between the upper ends of said clamping plates, and a set screw working through said bail for the purpose of clamping said crank spindle in lateral adjustment, said crank spindle having a free tilting or swinging movement, substantially as set forth.

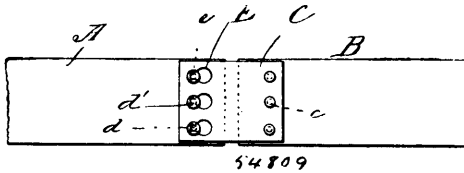
No. 54,808. Fruit Box. (Boîte à fruit.)



Joseph C. Peltier, Windsor, Ontario, Canada, 1st February, 1897; 6 years. (Filed 22nd October, 1896.)

Claim.—1st. In a knock-down box formed of a single piece of material, the walls of said box formed by cutting partly through the material as shown at *b*, slits *a* cut through said walls whereby the ends and sides may overlap and form a box, substantially as described. 2nd. In a knock-down box formed of a single piece of veneer, walls formed by cutting said veneer partly through as shown at *b*, said walls cut as shown at *a*, whereby the said walls may overlap when formed into a box, and means for securing said walls when in position as a box, substantially as described. 3rd. In a knock-down box formed of a single piece of material, the walls of said box formed by slitting said veneer, as shown at *a*, and by cutting partly through the veneer, as shown at *b*, staples *c* for securing said walls in position when formed as a box, substantially as described.

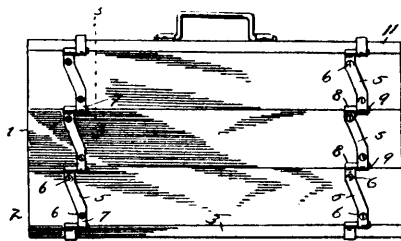
No. 54,809. Belt Fastener. (Attache de courroie.)



Julien Boucher, Grenville Junction, Maine, U.S.A., 1st February, 1897; 6 years. (Filed 24th October, 1896.)

Claim.—1st. A belt fastener, comprising a plate provided with pins having heads at their ends, and a section plate provided with holes for the said heads to pass through, and slots opening into the said holes and fitting the said pins, substantially as set forth. 2nd. A belt fastener, comprising two plates, each provided at one end with pins having heads at their ends, and at the other end with holes having slots opening into them, said holes being large enough to permit the said heads to pass through them, and the said slots being formed to fit the said pins, substantially as set forth.

No. 54,810. Sectional Box. (Boîte en section.)

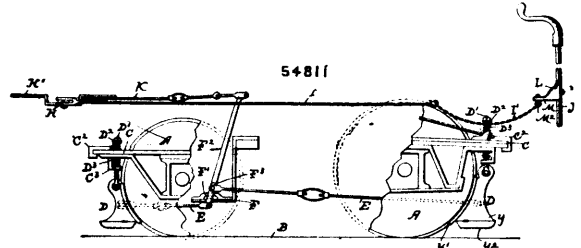


Peter C. Van Dolah and John K. Denny, both of Kingsville, Missouri, U.S.A., 1st February, 1897; 6 years. (Filed 21st October, 1896.)

Claim.—1st. A sectional case for containing and transporting commodities, consisting of a series of vertically-disposed sections,

each section having at its rear a pair of straps each having at one end a laterally extending pintle having an offset and at its other end an elongated eyed portion, substantially as and for the purpose set forth. 2nd. A sectional case for containing and transporting commodities, consisting of a series of vertically-disposed sections, each section having at its rear a pair of straps each having at one end portion a laterally-extending pintle having an offset and at its other end an elongated eyed portion, and a lid having at its rear a pair of depending straps having an elongated eyed portion, substantially as and for the purpose set forth. 3rd. A sectional case consisting of a lid, a pair of straps depending rearwardly thereof and having an elongated eyed portion, one or more sections, and vertical straps secured to the rear of said sections and each having an angular-extending central portion and, at one end, an elongated eye and, at its other end, a lateral pintle having a transverse offset, substantially as and for the purpose set forth. 4th. A sectional case consisting of a plurality of sections, and vertical straps secured to the rear of said sections and each having at one end an eye having a transversely-tapering bore and at its other end a lateral pintle having a transverse offset, substantially as and for the purpose set forth.

No. 54,811. Car Brake. (Frein de chars.)



James C. Devlin, Hernando, Mississippi, U.S.A., 1st February, 1897; 6 years. (Filed 21st December, 1896.)

Claim.—1st. The combination with a truck frame, of springs supported upon the frame, a brake beneath the frame, supported by said springs and provided with both wheel-impinging shoes and rail impinging shoes, and means for swinging said brake toward the wheels. 2nd. The combination with a truck frame, of vertically sliding rods carried by said frame, springs arranged to resist downward movement of the rods, a brake pivotally supported by the rods and provided with wheel-impinging shoes and with rail-impinging shoes, and means for swinging the brake toward the wheels. 3rd. The combination with a four wheeled truck having brakes adapted to swing horizontally against the wheels, of a transverse rock-shaft mounted in bearings adapted to permit bodily lateral movement and provided with suitable rigid arms near each end, rods connecting the arms at each end, respectively, to the brakes swinging against the corresponding wheels, and means for rocking the rock-shaft. 4th. The combination with the truck having brakes arranged for pressing the wheels, respectively, of a rock-shaft supported in bearings permitting bodily lateral movement and provided with rigid end arms and with a rigid central arm, devices connecting said end arms, respectively, to the corresponding brakes, and devices connecting the free end of the central arm to brake-operating mechanism. 5th. The combination with two four-wheeled trucks each having brakes acting upon its several wheels, of a lever centrally pivoted between the trucks and movable toward either, two transverse rock-shafts lying, one in each truck, between the pairs of wheels and mounted in bearings permitting either end to move toward either pair of wheels, devices connecting the arms of said lever to the rock-shafts, each to each, to operate the latter, and devices connecting each end of each rock-shaft to the brakes acting upon the adjacent wheels. 6th. The combination with two sets of trucks each provided with brakes for each wheel and with a transverse rock-shaft connected to the several brakes to operate them by its rotary motion, of a lever arranged, between the sets, for bodily movement toward either, devices connecting the lever arms, respectively, to the corresponding rock-shafts to operate them, and means for drawing one lever arm toward one of said sets.

No. 54,812. Pile Protecting Compound.

(Composé pour la protection des pilotis.)

Hugo Gallinowsky, Longbeach, Mississippi, U.S.A., 1st February, 1897; 6 years. (Filed 26th October, 1896.)

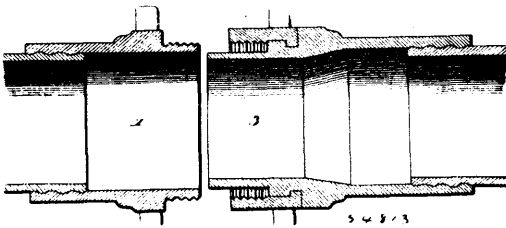
Claim.—1st. A protective covering for piles and other timbers composed of fibrous material compounded with boracic acid, magnesium chloride, hydrated magnesium oxide and sal-ammoniac, substantially as described. 2nd. A pile covered throughout a portion of its length with a substance consisting of fibrous material compounded with boracic acid, magnesium chloride, hydrated magnesium oxide and sal-ammoniac, and filled with creosote, substantially as described. 3rd. A pile or other timber, covered throughout a portion of its length with a substance composed of fibrous material compounded with boracic acid, magnesium chloride, hydrated magnesium oxide and sal-ammoniac, and filled with creosote, substantially as described. 4th. A pile covered throughout a portion of its length with a substance consisting of fibrous material compounded with boracic acid, magnesium

chloride, hydrated magnesium oxide and sal-ammoniac, and diminished in cross section where said covering is applied, and



filled with creosote with said covering on, substantially as described. 5th. In the protection of piles and other timbers, the process which consists in subjecting fibrous material to a bath of boracic acid, then pressing a portion of said acid out, then subjecting said fibrous material to successive baths of magnesium chloride and hydrated magnesium oxide with sal-ammoniac, then pressing the said fibrous material so treated and wrapping the same on the timber to be protected, and then subjecting the timber with covering on, to a bath of creosote, or other wood preserving oil, substantially as described.

No. 54,813. Hose Coupling. (Joint de boyaux.)



Felix L. Decarie, Montreal, Quebec, Canada, 2nd February, 1897; 6 years. (Filed 9th November, 1896.)

Claim.—1st. In a coupling, a part or member provided with a guide to snugly fit within or telescope with the other part or member to cause the said parts to come squarely together whereby the threads will match when fitting the parts of the coupling together, substantially as set forth. 2nd. In a coupling, a guide or sleeve fitted within the female part and projecting beyond the end thereof to give proper direction when placing the parts of the coupling together so as to insure a perfect matching of the threads, substantially as set forth. 3rd. In a coupling, a part having a valve slidingly fitted thereto, and a guide or sleeve applied to the other part or member of the coupling to give proper direction to the parts when placing them together, and the said guide engaging with and unseating the valve, substantially as and for the purpose set forth. 4th. In a coupling, a part having a chamber intermediate of its ends, and having a valve opening into the said chamber, and a guide or sleeve applied to the other part or member of the coupling to unseat the said valve and at the same time give proper direction to the parts of the coupling when placing them together, substantially as set forth. 5th. In a coupling, a part or member having a chamber intermediate of its ends, a valve for closing an opening in the lowest part of the chamber and normally standing open, a second valve normally closing the egress opening and limited in its inward movement, and a guide or sleeve for unseating the second valve and applied to the second part or member of the coupling to give proper direction to the parts when fitting them together, substantially as and for the purpose set forth.

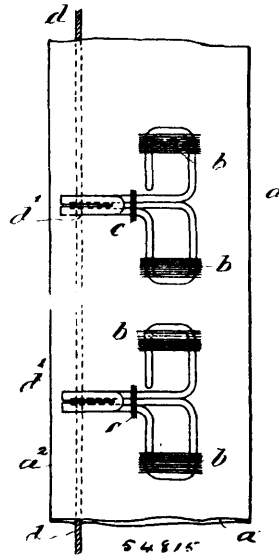
No. 54,814. Anti-Incrustating Compound. (Composé pour empêcher les incrustations dans les chaudières à vapeur.)

Stefan Borecky and Josef Komestik, both of Pardubice, Austria, 2nd February, 1897; 6 years. (Filed 16th November, 1896.)

Claim.—1st. Anticrustating fluid for steam boilers, composed of water, calcined soda, oil soot, pulverized zinc, caustic lime, mineral oil, and eventually tartaric acid and tannin, all prepared and used in the quantities and proportions, and in the way substantially as set forth. 2nd. Anticrustating fluid for steam boilers, composed of water, calcined soda, oil soot, pulverized zinc, caustic lime, and mineral oil, in the proportions substantially as set forth.

No. 54,815. Means for Holding Hooks and Eyes.

(Porte-agrafes.)



August Prym, Stollberg, Prussia, 2nd February, 1897; 6 years. (Filed 21st November, 1896.)

Claim.—1st. As a means for holding hooks or eyes, or hooks and eyes, a strip of fabric having loops adapted to take over the legs of said hooks or eyes, said loops being formed upon said strip prior to attaching the hooks or eyes thereto, substantially as and for the purpose hereinbefore set forth. 2nd. As a means for holding hooks or eyes, or hooks and eyes, a strip of fabric having loops adapted to take over the legs of said hooks or eyes, said loops extending in the longitudinal direction of said strip, and being formed upon the latter prior to attaching the hooks or eyes thereto, substantially as and for the purpose hereinbefore set forth. 3rd. As a means for holding hooks or eyes, or hooks and eyes, a strip of fabric having loops adapted to take over the end portions of the legs of said hooks or eyes, said loops being formed upon said strip prior to attaching the hooks or eyes thereto, substantially as and for the purpose hereinbefore set forth. 4th. As a means for holding hooks or eyes, or hooks and eyes, a strip of fabric having loops adapted to take over and into the ears of said hooks or eyes, said ears being open, and said loops being formed upon said strip prior to attaching the hooks or eyes thereto, substantially as and for the purpose hereinbefore set forth. 5th. As a means for holding hooks or eyes, or hooks and eyes, a strip of fabric consisting of two layers, and having loops adapted to take over the legs of said hooks or eyes, said loops being situated between said layers, and being formed upon one or the other of the said layers prior to attaching the hooks or eyes to said strip, the upper layer having apertures for letting the hooks or eyes proper pass outside, substantially as and for the purpose hereinbefore set forth. 6th. As a means for holding hooks, a strip of fabric consisting of two layers, and having loops adapted to take over the legs of said hooks, said loops being situated between said layers, and being formed upon one or the other of the said layers prior to attaching the hooks to said strip, the upper layer having apertures for letting the hooks proper pass outside, said hooks proper having projections adapted to hinder the same from gliding back inside, substantially as and for the purpose hereinbefore set forth. 7th. As a means for holding hooks, a strip of fabric having loops adapted to take over the legs, and other loops adapted to take over the middle-portions of said hooks, said loops being formed upon said strip prior to attaching the hooks or eyes thereto, substantially as and for the purpose hereinbefore set forth. 8th. As a means for holding hooks, a strip of fabric having loops adapted to take over the legs of said loops, and other loops adapted to take over the base-portions of the hooks proper, said former loops being formed upon said strip prior to attaching the hooks thereto, and said other loops being formed by a piece of cord, band, steel-band, or whale-bone, arranged within the space between said two layers, and leaving said space through apertures provided in the upper of said layers, and being situated at said base-portions of the hooks proper, substantially as and for the purpose hereinbefore set forth. 9th. As a means for holding hooks, a strip of fabric consisting of two layers, and having loops adapted to take over the legs of said hooks, and other loops adapted to take over the base-portions of the hooks proper, said former loops being formed upon said strip prior to attaching the hooks thereto, and said other loops being formed by a piece of cord, band, steel-band, or whalebone, arranged within the space between said two layers, and leaving said space through apertures provided in that upper of said layers, and being situated at said base-portions of the hooks proper,

said upper layer having, further, other apertures for letting the hooks proper pass outside, the legs of the hooks being also arranged between the said layers, and the latter being connected by a seam situated near the said legs, substantially as and for the purpose hereinbefore set forth.

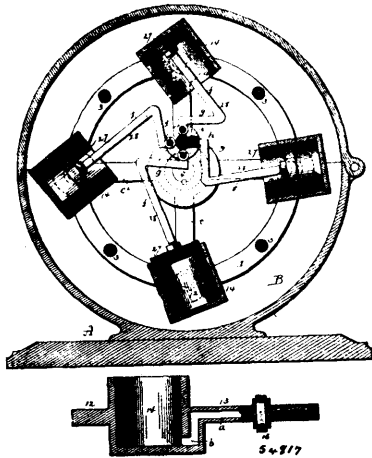
No. 54,816. Button. (*Bouton.*)



Charles W. Lawyer, Berkeley Springs, West Virginia, U.S.A., 2nd February, 1897; 6 years. (Filed 23rd November, 1897.)

Claim.—As a new article of manufacture, a button, made up of a single piece of wire, coiled at one end to form a base formed with a shank projecting outwardly from the middle of said base, and with a head made by a second coil at the upper end of said shank, the edges of the wire forming the base being slightly separated and those of the wire forming the head being in close contact one with the other, substantially as and for the purpose described.

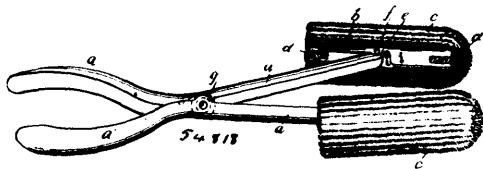
No. 54,817. Rotary Steam Engine. (*Machine à vapeur rotatoire.*)



William Smith, Sheldon, Iowa, and Ker D. Dunlop, Sibley, Iowa, U.S.A., 2nd February, 1897; 6 years. (Filed 19th August, 1896.)

Claim.—1st. In a rotary steam engine, the combination with a revolvable frame and fixed crank, of a series of oscillatory cylinders mounted in said frame, a piston in each cylinder, a piston rod connected with each piston, a sleeve mounted loosely on the crank having flanges, a socketed boss on said sleeve, and a crank on one of said piston rods to enter said socketed boss, the other piston rods being pivotally connected with said flanges, substantially as set forth. 2nd. In a rotary steam engine, the combination with a revolvable frame comprising two rings connected together, of a shaft secured to one of said rings, a fixed shaft on which the other ring is loosely mounted, a disc secured to the fixed shaft, a short shaft mounted loosely on said first-mentioned ring, a crank arm secured at its ends to said disc, a sleeve on the crank arm, cylinders carried by the revolvable frame, pistons on said cylinders, and connections between said pistons and the sleeve on the crank arm, substantially as set forth.

No. 54,818. Brush. (*Brosse.*)



Charles Klanberg, Springfield, Massachusetts, U.S.A., 2nd February, 1897; 6 years. (Filed 30th November, 1896.)

Claim.—1st. An improved brush consisting of a handle, a brush-carrying arm pivotally attached to the handle and a brush secured to said arm, substantially as shown. 2nd. An improved brush consisting of a handle, a brush-carrying arm pivotally attached to the handle adjacent to a point midway between the ends of the brush-carrying part and bristles mounted on the arm, substantially as shown. 3rd. The combination of a handle, a brush-carrying arm, pivotally secured thereto, and bristles carried by said arm and projecting from the end thereof, and bristles secured to the arm and

projecting laterally, substantially as shown. 4th. The combination of a handle, a brush-carrying arm having lugs *e* pivotally connected between the end portion of the handle and the lugs *e* and bristles mounted on the arm, substantially as shown. 5th. The combination in a brush, of a handle, a brush-carrying arm pivotally secured thereto, bristles carrying parts *d* having bristles secured thereto and the end portions of the parts *d* being bent over the end portions of the brush-carrying arm and bristles arranged to project from the end of the arm, substantially as shown. 6th. The combination of two handles pivotally united, two brush-carrying arms pivotally mounted upon the ends of the handles respectively and bristles mounted upon or secured to the brush-carrying arms, substantially as shown. 7th. In a device for cleaning tumblers, bottles, etc., the combination with two handles pivotally united, each provided with a brush-carrying arm pivotally connected with the handles respectively and bristles secured to said arms, substantially as shown. 8th. In a device for cleaning tumblers, the combination with two handles pivoted together and provided with a brush-carrier pivotally connected respectively with said handles, and formed at their outer ends with flaps and bristles secured to the outer ends of said carriers, substantially as described. 9th. In a device for cleaning tumblers, the combination with two handles pivoted together and each provided a brush-carrier pivotally connected respectively with said handles, and constructed at their outer ends with flaps, and having their ends notched, bristles secured to the outer ends of said carriers by said flaps, and brushes constructed at their ends with retaining fingers which enter the notches in the ends of the carrier, and which at the outer ends pass through the bristles on the end of the carrier, substantially as described.

No. 54,819. Tent Pole. (*Poteau de tente.*)



Fanny Clunn, Toronto, Ontario, Canada, 2nd February, 1897; 6 years. (Filed 30th November, 1896.)

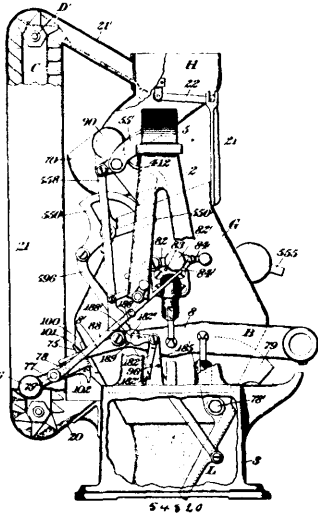
Claim.—1st. In a tent pole, in combination with the end or ends thereof, a receiving socket, a spiral extension spring located normally between the closed end of the socket and the end of the pole entering, fitting into and sliding in the socket, and means for adjustably holding the entering end of the pole in the socket against the tension of the spring, substantially as and for the purpose described. 2nd. In a tent pole, in combination with the end or ends, a receiving socket or spiral extension spring located normally between the closed end of the socket and the end of the pole entering, fitting into and sliding in the socket, a disc with projecting pin extending through the slot and interposed between the spring and the end of the pole entering, fitting into and sliding in the socket, and clamping means on such pin for retarding the action of the spring, substantially as and for the purpose described.

No. 54,820. Weighing Machine. (*Balancé à bascule.*)

Francis H. Richards, Hartford, Connecticut, U.S.A., 2nd February, 1897; 6 years. (Filed 30th November, 1896.)

Claim.—1st. The combination with an automatic weighing mechanism, and with load-supplying means therefor, of load-reducing means operative during the weighing of a load. 2nd. The combination with an automatic weighing mechanism of load-supplying means and load-reducing means alternatively operative during the weighing of a load. 3rd. In an automatic weighing machine, the combination with load-supplying means, of a load-receiver having a

load-reducing opening, and means for uncovering said opening during the weighing of a load. 4th. In an automatic weighing machine,



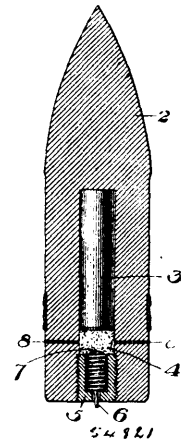
the combination with load-supplying means, of a load-receiver, and load-reducing means carried by the load-receiver, and operative during the weighing of a load. 5th. The combination with weighing mechanism, of means for supplying an over-load of material to the weighing mechanism, and load-reducing devices operable for reducing the over-load by discharging a portion thereof to thereby bring the loaded weighing mechanism to a true poise. 6th. In an automatic weighing machine, the combination with a reciprocatory load-receiver, of overloading means for overpoising said load-receiver, and load-reducing means operative during the weighing of a load. 7th. In an automatic weighing machine, the combination with a bucket, of supplementary valve mechanism for discharging a part of the bucket load, and main load-discharging means operable on the ascent of the bucket. 8th. In an automatic weighing machine, the combination with a bucket and with a closer therefor, of closer-releasing means automatically operative on the ascent of the bucket. 9th. In an automatic weighing machine, the combination with a bucket, of the following instrumentalities operative in the order named, viz., overloading means, load-reducing means, and load-discharging means. 10th. The combination with a load receiver, of overloading and load-reducing mechanisms operative in the order named and effective, respectively, for causing the descent and ascent of said load-receiver below and to the poising-line during the weighing of a load, and means for preventing the discharge of the load-receiver during said descending movement thereof. 11th. In an automatic weighing machine, the combination with a bucket having a load-reducing opening with beam mechanism and load-supplying means, of a beam-operated load-reducing valve operative for uncovering said opening during the weighing of a load. 12th. In an automatic weighing machine, the combination with a bucket having a load-reducing opening and with beam mechanism and load-supplying means, of a load-reducing valve operative for uncovering said opening during the weighing of a load, and a valve-latch for holding said valve open. 13th. In an automatic weighing machine, the combination with a bucket having a load-reducing opening and with beam mechanism and load-supplying means, of a load-reducing valve operative for uncovering said opening during the weighing of a load, a valve-latch for holding said valve open, and a valve-latch tripper operative on the ascent of the bucket. 14th. In an automatic weighing machine, the combination with a bucket having a load-reducing opening and with a bucket-latch and beam mechanism, of overloading means, and a latch-tripper load-reducing valve operative for uncovering said opening during the weighing of a load and for releasing the bucket-latch on the ascent of the bucket. 15th. In an automatic weighing machine, the combination with a bucket having a load-reducing opening in one side thereof and between the delivery and discharge ends of the bucket, of means for covering and uncovering said opening. 16th. The combination with automatic weighing mechanism and with load-supplying means therefor, of load-reducing means operative during the weighing of a load, and means for receiving material taken from the bucket during such load-reducing action and reconveying it to the bucket for the make-up of a new load.

No. 54,821. Explosive Projectile. (*Projectile explosible.*)

James King Bakewell, Allegheny City, Pennsylvania, U.S.A., 2nd February, 1897; 6 years. (Filed 1st December, 1896.)

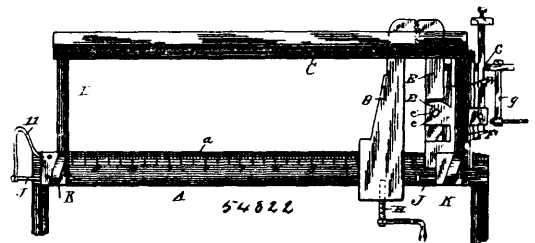
Claim.—1st. The method hereinbefore described, which consists in freezing a high explosive subject to explosion by concussion, and then while the explosive is frozen firing it from the gun and effecting its explosion, substantially as and for the purposes specified. 2nd. As a new article of manufacture, a projectile charged with a high explosive reduced to a temperature sufficiently low to render

it practically non-explosive when fired from a gun, substantially as and for the purposes specified. 3rd. As a new article of manufac-



ture, a projectile consisting of the outer body having a cavity, a case or cylinder for containing the explosive, and a charge of a high explosive in a frozen condition, substantially as and for the purposes specified. 4th. As a new article of manufacture, a projectile charged with frozen dynamite, substantially as described. 5th. The method hereinbefore described, which consists in freezing a high explosives by concussion, firing the same in a shell from a gun while in such frozen condition, and exploding the same by impact when it strikes, substantially as described. 6th. The method of firing high explosive herein described, which consists in charging a shell with a high explosive that is rendered less explosive by cold, and reducing the temperature of the explosive charge to a degree at which it may be fired from a gun without danger of premature explosion, and in subjecting the explosive charge during flight of the projectile to heat created within the projectile. 7th. As a new article of manufacture, an explosive projectile charged with a high explosive reduced to a temperature sufficiently low to render it practically non-explosive when fired from a gun, and a heat-giving agent for heating the explosive charge during the flight of the projectile. 8th. As a new article of manufacture, an explosive projectile containing a charge of frozen high explosive, and a slow burning compound for thawing the explosive during the flight of the projectile.

No. 54,822. Vise. (*Etau.*)



James Milton Kennedy, Baker, Georgia, U.S.A., 2nd February, 1897; 6 years. (Filed 2nd December, 1896.)

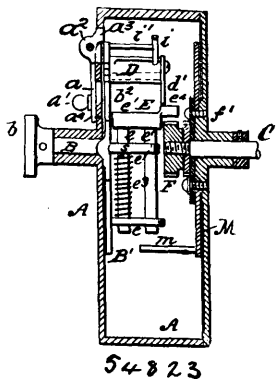
Claim.—1st. The combination with the pivoted and the sliding jaws, of the pins mounted in the upper ends thereof and having provision for moving them in and out of the jaws, a spring acting on the lower end of the pivoted jaw and a screw acting against the upper end of said jaw, substantially as described. 2nd. The combination with the base-plate and the lugs thereon, of the uprights carrying the longitudinal strips and mounted for pivotal movement and also for movement in the direction of the length of the base-piece, substantially as described. 3rd. The combination with the base-plate and the lugs thereon, of the uprights carrying the longitudinal strips and mounted for pivotal movement and also for movement in the direction of the length of the base-piece, and springs acting upon the means which carry said uprights, substantially as described. 4th. The combination with the base-piece and the lugs thereon having recesses, of the uprights carrying the longitudinal strips and rods to which said uprights are connected, said rods mounted for sliding movement in said lugs, substantially as described. 5th. The combination with the base-piece and the lugs thereon having recesses, of the uprights carrying the longitudinal strips and rods to which said uprights are connected, said rods mounted for sliding movement in said lugs, and springs secured to one set of said lugs and acting upon the rods thereof, substantially as described.

No. 54,823. Prepayment Vending Machine.

(*Appareil de vente actionnée par une pièce de monnaie.*)

Frank E. Morgan, West Haven, Connecticut, U.S.A., 2nd February, 1897; 6 years. (Filed 2nd December, 1896.)

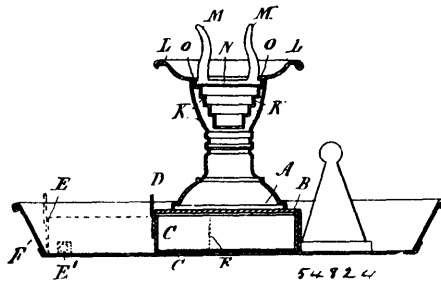
Claim.—1st. The combination, in a prepayment vending apparatus, of the casing having an opening for the passage of the coin,



with a movable carrier having two jaws adapted to align with the opening and receive the coin between them, one of said jaws being movable toward and from the other, the said jaws being arranged to positively hold the coin in place between them by their clamping action alone, with connections between the movable carrier and a supply controlling device so that on the movement of the carrier away from the opening with a coin between the jaws, the feeder or controller will be operated, and means for discharging the coin from the jaws, substantially as described. 2nd. The combination, in a prepayment vending apparatus, of the casing having an opening for the passage of the coin, with a movable carrier having two jaws adapted to align with the opening and receive and hold the coin directly between them, one of said jaws being movable toward and from the other and adapted to engage a supply controlling device, so that on the movement of the jaws away from the opening with the coin between them the feeder or controller will be operated, with means for discharging the coin from the jaws, substantially as described. 3rd. The combination, in a prepayment vending apparatus, of a carrier having two jaws, one movable in respect to the other with means whereby said movable jaw engages with a supply-controlling device when a coin of the proper denomination is inserted between the jaws, means for moving the carrier and a stop acting on one of said jaws to release the coin, substantially as described. 4th. The combination, in a prepayment vending apparatus, of a carrier having two jaws, one movable in respect to the other, with means whereby the movable jaw engages with a supply-controlling device when a coin of the proper denomination is inserted between the jaws, means for moving the carrier, and an adjustable stop acting on one of said jaws to release the coin, substantially as described. 5th. The combination, in a prepayment vending apparatus, of a carrier having two jaws, one jaw adapted to slide toward and from the other jaw, and one jaw being adapted to rotate on an axis, with means for turning the carrier, a toothed wheel with which said sliding jaw engages when a coin is inserted between the two jaws, and means for rotating the rotary jaw to discharge the coin, as the carrier is turned, all substantially as described. 6th. The combination of the disc, two jaws on said disc, one of said jaws being movable toward and from the other, and means for partially rotating one of said jaws and discharging the coin and a shaft by which the disc is turned, with a stop acting on the rotatable jaw, a toothed wheel with which the sliding jaw engages, when the coin is between the jaws, and a spring tending to close the jaws, substantially as described. 7th. The combination of the casing, an opening therein for the passage of the coin, an operating shaft, jaws mounted on said shaft, one of said jaws being movable from and toward the other, and a spring tending to close the jaws, with a toothed wheel with which the sliding jaw engages, and a stop acting to discharge the coin when the jaws are moved away from the slot in the casing, to a predetermined point, substantially as described. 8th. The combination of the casing, an opening therein for the passage of the coin, and a cover for said opening, with a carrier having jaws for the coin within the casing, said carrier being so set in relation to the cover that the cover cannot be opened except when the coin jaws are opposite the opening, and the carrier cannot be operated except when the cover is closed, substantially as described. 9th. The combination of the casing having a coin-opening, an operating shaft, a disc on said shaft having a notch and jaws carried by said disc to receive the coin, with a cover for the opening in the casing, said cover having a portion adapted to enter the notch in the disc and so situated that the cover cannot be opened except when the notch is brought opposite the cover, substantially as described. 10th. The combination of the casing, having a slot for the coin, with an operating shaft, a rotary disc thereon, jaws carried by said disc, one jaw being movable in respect to the other, and one jaw having a rotary motion to discharge the coin, a spring tending to close the jaws, a projection on said rotative jaw, and a stop against which the projection strikes when the disc is turned, substantially as described. 11th. The combination of the casing having a slot for the passage of the coin, an operating shaft and a disc thereon, jaws mounted on said disc, one jaw being movable from and toward the other, and one jaw being adapted to rotate, and a spring tending to close the jaws, with a

stop for striking the rotary jaw, a projection on the sliding jaw, an operated shaft, and a toothed wheel on said shaft with which the projection engages, when a coin is inserted, substantially as described. 12th. The combination in a prepayment vending apparatus, of the casing having a coin-slot and a movable coin carrier within the casing having a pair of jaws to receive and hold the coin between them, with a hinged cover having a projection to enter the slot and a lug on said cover for retaining the carrier in position for the insertion of a coin, substantially as and for the purpose described. 13th. The combination, in a prepayment vending apparatus, of the casing having a coin-slot, a coin carrier with two jaws one movable toward and from the other, one of said jaws being rotatable, and having a groove, a door to cover the slot in the casing and having a dog to pass into the groove in the rotary jaw to turn it, so that its coin-slot will align with the opening in the casing, substantially as described.

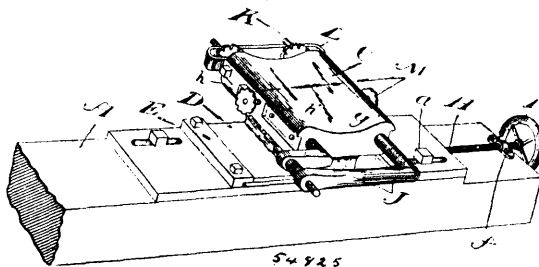
No. 54,824. Candlestick. (Chandelier, etc.)



Edwin Gilbert, George Gilbert and Samuel Gilbert, all of Derby, England, 2nd February, 1897; 6 years. (Filed 4th December, 1896.)

Claim.—1st. In combination with the base having a raised rim, the candlestick having a hollow lower end seated in said tray, and the drawer or receptacle in said hollow portion and arranged to slide out into the open portion of the base, substantially as described. 2nd. In combination with a socket having a series of steps forming shoulders upon which the candle may rest, the studs O projecting inwardly over the upper step of the series and the ring resting upon the upper step held by said studs and having upwardly-projecting spring-arms, substantially as described.

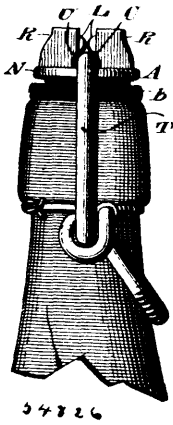
No. 54,825. Saw Guide. (Guide-saw.)



Fred Cluff, Mar, Ontario, Canada, 2nd February, 1897; 6 years. (Filed 23rd December, 1896.)

Claim.—1st. In a saw guide, a base plate and a head adapted to slide therein, in combination with guides independently adjustable in said head, and mechanism for moving and adjusting the head, substantially as and for the purpose specified. 2nd. In a saw guide, a base plate and a head adapted to slide therein, in combination with guides independently adjustable in the said head, a slide movable on the base plate and adapted to engage with a diagonal groove formed in the head, and mechanism for moving and adjusting the slide, substantially as and for the purpose specified. 3rd. In a saw guide, the base plate B, having the guides E formed thereon, and the longitudinal slot e formed thereon in combination with the head C, having a flanged foot D formed thereon in which is cut a diagonal groove F, adjustable guides J carried by the said head, the slide C comprising the diagonal portion b and the straight portion c, the screw-threaded rod H provided with a hand wheel I, and a collar f adapted to fit between suitable thrust bearings, substantially as and for the purpose specified. 4th. In a saw guide, the combination of the head C, having recesses h, h' and similarly located bolt holes therein, the guides J provided with stems g, the strap L, and the adjusting nuts K, substantially as and for the purpose specified. 5th. In a saw guide, the base plate B, having the guides E formed thereon and the longitudinal slot e formed therein, in combination with the head C, having a flanged foot D formed thereon in which is cut a diagonal groove F, adjustable guides J carried by the said head, the slide C comprising the diagonal portion b and the straight portion c, the rod H, and the lug f, the said rod having a right-hand screw thread formed thereon to engage the slide G, and a left-hand thread formed thereon to engage with the lug f, substantially as and for the purpose specified.

No. 54,826. Bottle Stopper. (*Bouchon de bouteilles.*)

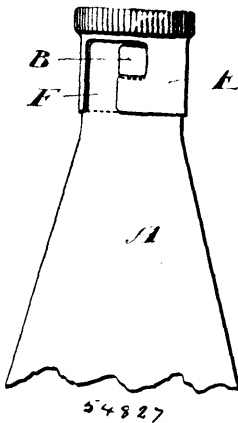


William J. Cunningham, Pennsylvania, U.S.A., 2nd February, 1897; 6 years. (Filed 21st December, 1896.)

Claim.—1st. A bottle stopper, consisting of a body portion and a plate attached to the bottom thereof, and adapted to be interposed between the bottom of said stopper and the liquid in said bottle, substantially as described. 2nd. A bottle stopper having a body portion, a neck, and a plate secured to the underside thereof, said plate having an upwardly turned portion and an inwardly turned flange, the latter entering and being embedded in said neck, substantially as described. 3rd. A bottle stopper detachably connected with the retaining bail thereof, substantially as described. 4th. A bottle stopper having jaws therein for detachable connection of a bail therewith, substantially as described. 5th. A bottle stopper having a thimble therein, jaws within said thimble and means for connecting said jaws with said thimble, substantially as described. 6th. A bottle stopper having jaws connected by a base, a thimble freely inclosing said jaws and engaging said base, substantially as described. 7th. A bottle stopper having a thimble therein, a rim and flange on the ends of said thimble, and jaws located in said thimble and retained by said flange, said parts being combined substantially as described. 8th. A bottle stopper having jaws therein for detachable connection with the retaining bail, and a shoulder on one of the jaws for engagement of said bail, substantially as described. 9th. A bottle stopper having lugs provided with shoulders thereon, adapted to be engaged by the bail in the initial act of opening the bottle, substantially as described. 10th. The combination with a bottle, of a stopper having recessed lugs thereon, a bail, and a supporting device therefor within said lugs, the latter being adapted to be engaged by said bail in the initial act of opening the bottle, substantially as described.

No. 54,827. Bottle Stoppering System.

(*Système de bouchon de bouteilles.*)

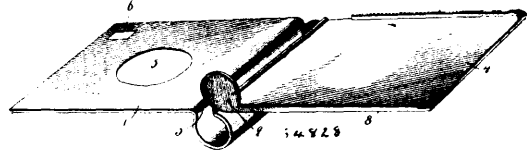


Frederick Andrews and W. Y. Andrews, both of London, England, 2nd February, 1897; 6 years. (Filed 12th December, 1896.)

Claim.—1st. In stoppering bottles, jars or other vessels, a cap adapted to fit over the mouth of the bottle, etc., having two or more inverted L-shaped slots in the bottom edge of said cap, the lower horizontal edge of each such slot being parallel to the horizontal lining or packing inside the end of said cap, in combination and acting in conjunction with studs, corresponding in number to said slots in the cap, on the exterior of the bottle neck and adapted to receive and hold the said lower horizontal edge of each such slot in the aforesaid cap horizontally under the lower edge of said studs, substantially as and for the purposes described. 2nd. A stopper or

cap such as E, adapted to fit over the mouth of a suitable bottle, jar or other vessel adapted to be stoppered thereby, having two inverted L-shaped slots such as F, G, in the bottom edge thereof, with the horizontal edges E¹ of said slots parallel to the packing H inside the end of said cap, in combination and acting in conjunction with two studs or projections such as B on the exterior of the bottle neck under the lower edges B¹, of which said studs the edges E¹ are forced and there horizontally retained, substantially in the manner and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed.

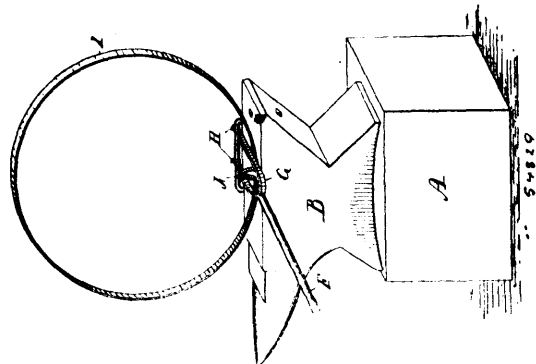
No. 54,828. Ticket Case. (*Porte-billets.*)



Elbert S. McMaster, Grand Forks, North Dakota, U.S.A., 3rd February, 1896; 6 years. (Filed 2nd December, 1896.)

Claim.—1st. A coupon or ticket case of substantially cylindrical form having a slot at one side, a supporting plate hinged to the casing at one side of the slot, and a covering plate of a size corresponding to the supporting plate attached to the casing at the opposite side of the said slot, the said slot being closed by a portion of the supporting plate when the covering plate is closed thereon, substantially as specified. 2nd. A coupon or ticket case of approximately cylindrical form having a slot in a side, a supporting plate hinged to the case at one side of the slot, and a covering plate having connection with the case at the opposite side of the slot and adapted to be swung with the case towards and from the supporting plate, one of the plates having a finger opening to permit contact with the coupon or ticket strip, and the plates lying substantially parallel when brought together, and a portion of the supporting plate extending over and closing the slot of the case, substantially as specified. 3rd. A case of the class described, comprising a covering plate, a casing formed at one end of said covering plate and adapted to receive a roll of coupons or tickets, a supporting plate secured to said casing and lying parallel with the covering plate when the case is closed, a disc carried by the supporting plate and adapted to close the casing in order to prevent the roll of coupons or tickets being displaced therefrom, and means for retaining said covering plate upon the supporting plate, substantially as set forth. 4th. A case of the class described, comprising a covering plate, a casing formed at one end of said covering plate and adapted to receive a roll of coupons or tickets, a supporting plate secured to said casing and lying parallel with the covering plate when the case is closed, said covering plate being provided with a finger opening to permit contact with the strip of coupons or tickets in order to assist removal of the same from the case and also provided with an opening adapted to expose the number of each coupon or ticket, a disc carried by the supporting plate and adapted to close the casing in order to prevent displacement therefrom of the roll of coupons or tickets, and means for retaining the covering plate upon the supporting plate, substantially as set forth.

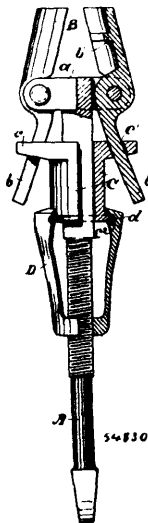
No. 54,829. Tire Up-setting Attachment for Anvil-Blocks. (*Attache de diable de forge pour enclumes.*)



Charles E. Pickrell, Castlemore, Ont., Canada, 3rd February, 1897 6 years. (Filed 3rd December, 1896.)

Claim.—1st. A tire upsetting attachment to anvil-blocks and anvils, comprising a holdfast E, connected to a bar C, provided with a loop D, and a bifurcated hand lever F, having the bifurcated end upturned, and adapted to engage the bar C through the loop, as and for the purpose set forth. 2nd. The combination with an anvil, of the holdfast E, bar C, bifurcated lever F, and anvil-block A, as set forth.

No. 54,830. Wrench. (Clé à écrou.)



Robert McDonald, Magalia, California, U.S.A., 3rd February, 1897; 6 years. (Filed 4th December, 1896.)

Claim.—1st. A wrench, comprising a stock having pivoted to one end thereof opposing jaws provided with divergent extensions behind their pivotal centres, a sleeve adapted to slide upon the stock and engaging said extensions whereby the latter are moved to or from each other to cause the jaws to separate or approach, and means on the stock for sliding the sleeve. 2nd. A wrench, comprising a stock having pivoted to one end thereof opposing jaws provided with divergent extensions behind their pivotal centres, a sleeve adapted to slide upon the stock and engaging said extensions whereby the latter are moved to or from each other to cause the jaws to separate or approach, and a clutch nut threaded on the stock and engaging the sleeve for adjusting it on the stock. 3rd. A wrench, comprising a stock having pivoted to one end thereof opposing jaws provided with divergent extensions behind their pivotal centres, a sleeve adapted to slide upon the stock and engaging said extensions whereby the latter are moved to or from each other to cause the jaws to separate or approach and a clutch nut threaded on the stock and engaging the sleeve to adjust it, said nut having a grooved end engaging freely a flange on the sleeve. 4th. A wrench, comprising a stock having a cross-foot, opposing jaws pivoted in opposite ends of said foot, and having rearwardly projecting divergent extensions, a sleeve slidable upon the stock and having a cross-foot with holes engaging said extensions whereby the jaws are separated and caused to approach, and means on the stock for sliding said sleeve. 5th. A wrench, comprising a stock having a cross-foot, opposing jaws pivoted in opposite ends of said foot and having rearwardly projecting divergent extensions, a sleeve slidable upon the stock and having a cross-foot with holes engaging said extensions whereby the jaws are separated and caused to approach and means for sliding said sleeve on the stock, consisting of a clutch nut threaded on the stock and engaging said sleeve. 6th. A wrench, consisting of a stock, opposing socket jaws pivoted thereto and having rearwardly projecting divergent extensions, a sleeve slidable on the stock and engaging said extensions to swing the jaws, a clutch nut on the stock engaging the sleeve to adjust it, and a limiting stop in the socket jaw.

No. 54,831. Pencil Sharpener. (Taille-crayon.)

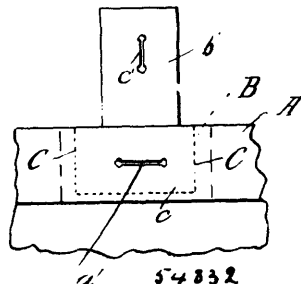


Andrew Prader, Spokane, Washington, U.S.A., 3rd February, 1897; 6 years. (Filed 7th December, 1896.)

Claim.—1st. A pencil holder and sharpener, consisting of a slotted body portion conically chambered to receive the end of the pencil to be sharpened and adapted to be carried on the non-sharpened end, a knife movably and removably seated in said body portion, said knife having its back tapered or bevelled to form a cam edge, and having also a projection at its heel end which has a bearing or abutment in the said body portion, and the sliding bands or rings which bear upon the said cam edge, whereby the adjustment of the said knife may be varied, substantially as specified. 2nd. The pencil sharpener consisting of the conically chambered body portion slotted at *b*, and having the intumed bevelled and tapered lip *d*, the opposit surface *c*, the notched aperture *g*, and niche *h*, the knife having the lateral projection at the end opposite the point, and adapted to fit the notch and aperture on said body portion, the point of sai

knife being adapted to engage the niche *h*, and the slidable rings or bands which adjustably secure said knife, substantially as specified. 3rd. In a pencil sharpener, the combination of the slotted sleeve, the body portion adapted to fit said sleeve and which is conically chambered, the knife movably and removably held in said body portion, said knife having its back bevelled or tapered to form a cam edge and at its heel portion a projection which has a bearing or abutment in said body portion, and the two sliding bands or rings which slidingly engage said cam edge, one at the point and one at the heel portion thereof, substantially as and for the purpose specified.

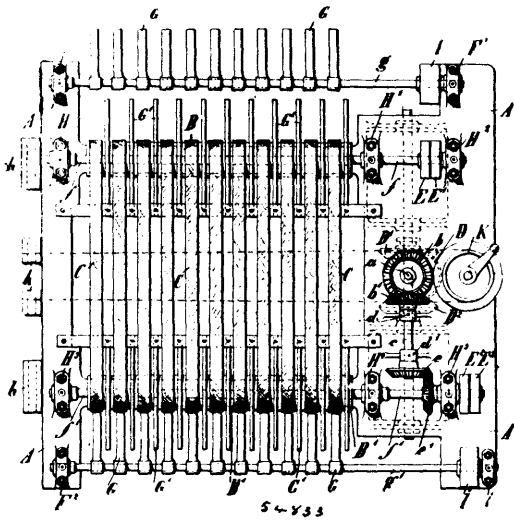
No. 54,832. Shirt Neck-Band. (Bande de chemise.)



George W. Delahey, Pembroke, Ontario, Canada, 3rd February, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—1st. The combination, with a shirt neck-band provided with a stud-hole, of a piece of textile material secured to the said band behind the stud-hole, substantially as set forth. 2nd. The combination, with a shirt neck-band provided with a stud-hole, of a piece of textile material secured to the said band behind the stud-hole by rows of stitches at its ends and bottom, substantially as set forth. 3rd. The combination, with a shirt neck-band provided with a stud-hole, of a piece of textile material secured to the said band behind the stud-hole and provided with a projecting flap having a hole for engaging with the front portion of the stud, substantially as set forth.

No. 54,833. Reaping Machine Delivering Device. (Appareil de décharge pour moissonneuses.)

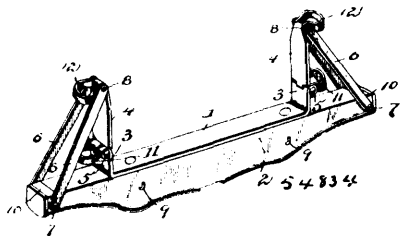


Otto Maychrzak, Berlin, Prussia, 3rd February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. Delivering device for reaping machines, comprising an endless transport band running over rollers, at the one end of which is a comb-like rake through the openings of which extends a second comb adapted to rotate and take with its teeth the corn which is deposited by the transport band upon the fixed rake. 2nd. In a delivery device as under claim 1, the arrangement of the rakes on both ends of the transport band and a coupling device, by which only one of these deliverers is operated and simultaneously the corresponding direction of movement is given to the transport band. 3rd. In place of the endless transport bands a plane carried by two cranked shafts and operated in swinging movements, upon which plane are arranged on the upper side points, and which conducts the thereon falling corn to the deliverers described in claims and 2. 4th. A delivering device for reaping machines, comprising vertical standing reacher-shafts provided with horizontal cross-arms which conduct the corn to an endless transport band provided with reacher-arms and arranged vertically behind it, which band delivers the corn laterally. 5th. A delivery arrangement for

reaping machines, consisting only of the vertical transport band as in claim 4, the latter having a chain provided with plate-like projections to carry the butts of the cut corn above the bottom table plate. 6th. In a delivery device as in claim 1-4 the arrangement of lateral frames at the ends of the transport band, to keep the corn back, until one of the arms at greater distances apart upon the transport band presses the corn through the rake when passing the latter and deliver it in gavels.

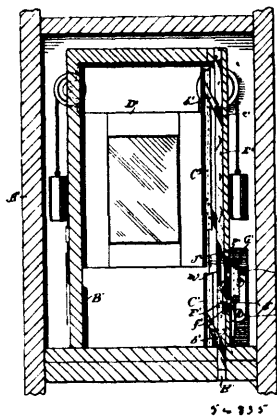
No. 54,834. Wagon Standard. (Epée de wagon.)



Emile Foutrel, San Antonio, Texas, U.S.A., 3rd February, 1897; 6 years. (Filed 8th January, 1897.)

Claim.—1st. In a device of the class described, the combination of a bolster provided with a support, a folding standard hinged to the same, an inclined brace pivoted at its lower end to the bolster, detachably secured at its other end to the top of the standard and adapted to swing downward below the upper face of the bolster, and means for supporting the brace when it is folded, substantially as described. 2nd. In a device of the class described, the combination of a bolster provided with a support, a vertical standard hinged to the support and adapted to swing downward on the bolster in folding, inclined braces arranged in pairs, located at opposite sides of the bolster and pivoted at their lower ends to the same, the upper ends of the braces being detachably secured to the top of the standard, and stake-receiving loops arranged at the top and bottom of the standard, substantially as described. 3rd. In a device of the class described, the combination of a bolster, a bar secured to the upper face of the bolster and having its ends bent vertically and provided with eyes, vertical standards pivoted at their upper and lower ends with fastening devices passing through the lower eyes of the standards and the eyes of the bar and hinging the standards to the latter, inclined braces arranged in pairs at opposite sides of the bolster, pivoted at their lower ends to the same and provided at their upper ends with perforations, fastening devices passing through the perforations of the braces and the upper eyes of the standards and detachably connecting the parts, stake-receiving loops provided with perforations receiving the said fastening devices, whereby they are secured to the top and bottom of the standards, and hooks mounted on the opposite faces of the bolster and arranged to receive the braces when the latter are folded, substantially as described. 4th. In a device of the class described, the combination of a bolster provided with a support, a vertically-disposed standard hinged at its lower end to the same and adapted to fold downward and outward upon the upper face of the standard, and the inclined brace pivoted at its lower end to the bolster, detachably secured at its other end to the standard and adapted to swing inward and downward below the upper face of the bolster, substantially as described.

No. 54,835. Window. (Fenêtre.)

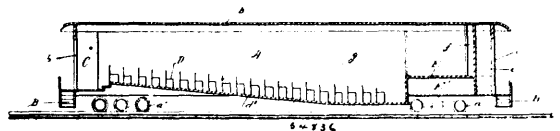


John Endres, Madison, Wisconsin, U.S.A., 3rd February, 1897; 6 years. (Filed 7th January, 1897.)

Claim.—1st. A window-frame having a laterally-adjustable parting-stop provided with lugs, lug-opposing latches retractable with the parting-stop, and the window-sash having the stiles thereof adjacent to said parting-stop provided with recesses for the engagement of the latches. 2nd. A window-frame having a loose parting-stop, a staff in such connection with the stop as to effect lateral

adjustment of the same coincident with longitudinal movement of itself, lugs extending from the parting-stop, lug-opposing latches retractable with the parting-stop, and the window-sash having stiles thereof adjacent to said parting-stop provided with recesses for the engagement of the latches. 3rd. A window-frame having a recessed jamb, hook-like pivotal latches hung in the jamb-recesses, a laterally-adjustable parting-stop provided with lugs opposed to the latch-hooks, and the window-sash having the stiles thereof provided with recesses for engagement of said latch-hooks. 4th. A window-frame having a removable inside stop, a laterally-adjustable parting-stop provided with lugs, lug-opposing latches retractable with the parting-stop, and the window-sash having stiles thereof adjacent to said parting-stop provided with recesses for the engagement of the latches. 5th. A window-frame having a laterally-adjustable parting-stop, a sash having one of its rails provided with a rabbet, and a rail-lapping tilting strip in the rabbet operative incidental to outward movement of said parting-stop to close the intervening space between said rail and the meeting-rail of another sash. 6th. A window-frame having a laterally-adjustable parting-stop, a sash having a rabbeted rail, a rail-lapping tilting-strip in the rabbet having a stop-engaging recess provided with a contact surface for projection into the path of said stop when the latter is retracted, the strip being operative incidental to outward movement of the aforesaid stop to close intervening space between said rail and the meeting-rail of another sash. 7th. A window-frame provided with a bracket presenting guide-lugs and journal-bearings, a rack-bar opposing the lugs, a pinion mounted in the bearings to mesh with the rack-bar, a staff connected to said rack-bar, a loose parting-stop, and suitable means for effecting lateral adjustment of the parting-stop coincident with longitudinal movement of the staff. 8th. A window-frame provided with a loose parting-stop, a staff in such connection with the stop as to effect lateral adjustment of the same coincident with longitudinal movement of itself, and a stay in the window-frame engageable with a lengthwise notch in said staff. 9th. A window-frame provided with a loose parting-stop having oblique wings alternately on opposite sides, a staff having correspondingly-disposed notches engaging the wings, and suitable means for effecting longitudinal movement of the staff. 10th. A window-frame having a rigid parting-stop and a movable parting-stop, oblique wings extended from the movable stop, a reciprocating staff having oblique notches engaged by said wings, a plate secured to the staff and provided with a lug, a rack-bar detachably connected to the lug, suitable guides for the rack-bar, a pinion in mesh with said rack-bar, a rod extending from the pinion through the window-frame casing, and a crank-key engageable with the outer end of the rod.

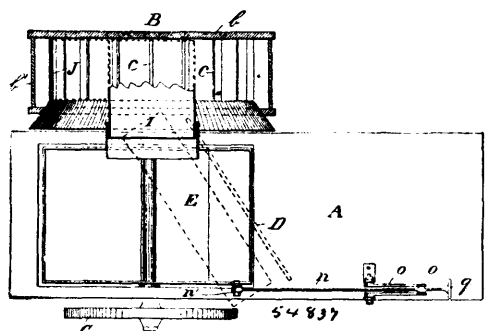
No. 54,836. Portable Theatre. (Théâtre portatif.)



Frederick W. Shipman, Toronto, Ontario, Canada, 3rd February, 1897; 6 years. (Filed 7th January, 1897.)

Claim.—1st. In a portable theatre, the combination, with a car body mounted on wheels and provided with an inclined floor, of a stage formed at one end of the said car body, substantially as set forth. 2nd. In a portable theatre, the combination, with a car body mounted on wheels and provided with an inclined floor, of a stage formed at one end of the car body, a compartment below the said stage, and a transverse passageway provided with steps behind the stage, substantially as set forth.

No. 54,837. Street Sweeper. (Balayeuse de rue.)

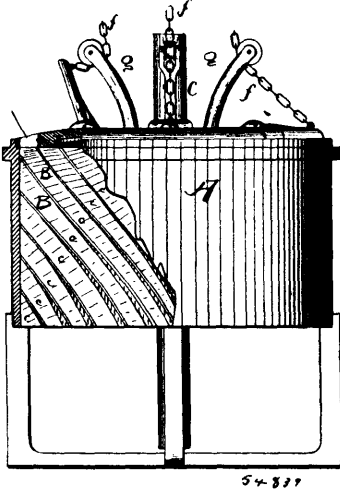


Andrew H. Smith, New York, State of New York, U.S.A., 3rd February, 1897; 6 years. (Filed 19th November, 1896.)

Claim.—1st. A street sweeping machine consisting of a frame, a hollow wheel journaled thereto, said wheel containing buckets, a brush to sweep particles into said wheel, and means for conveying the sweepings from said wheel into an adjacent receptacle, substan-

tially as set forth. 2nd. A hollow wheel containing means for elevating particles, and an outwardly flaring flexible flange arranged at the open side of said wheel, substantially as set forth. 3rd. In a street sweeping machine, a frame, a hollow, bucketed wheel journaled thereto, a brush mounted in trailers depending from the frame, said brush being arranged to sweep particles into the said wheel, and an apron in advance of said brush, having one side edge continuous with said wheel, to confine the sweepings, together with a flexible, triangular piece connected to said apron, to cover the space, bounded by the wheel, apron, and roadway, substantially as set forth. 4th. In a street sweeping machine, in combination, a frame, a hollow wheel journaled thereto, said wheel containing buckets to receive sweepings, a receptacle supported by the frame adjacent to said hollow wheel, and a chute to convey sweepings from the interior of said wheel to said receptacle, together with a shield arranged at either side of said chute, beneath the upper buckets, substantially as set forth.

No. 54,838. Turbine. (Turbine.)

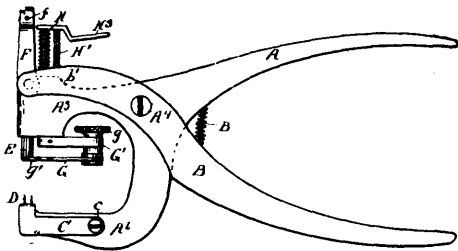


James Caldwell and Emery Caldwell, both of Auburn, New York, U.S.A., 3rd February, 1897; 6 years. (Filed 1st December, 1896.)

Claim.—A turbine water wheel, comprising a drum having spiral buckets thereon, a case enclosing the same, having openings at the bottom and a multitude of gates at the top, and means for operating them separately for the purpose of limiting or modifying the power, as set forth.

No. 54,839. Button-setting Implement.

(Appareil à assujétir les boutons.)



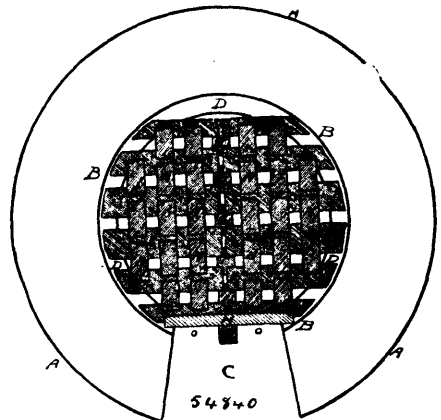
The McKenney Button Fastening Company, assignee of F. S. McKenney and Frank R. Welton, all of Detroit, Michigan, U.S.A., 3rd February, 1897; 6 years. (Filed 1896.)

Claim.—1st. In a hand button-setting implement, the combination of a jaw provided with arms A², A³, and an operating handle, a lever B fulcrumed to said handle and itself provided with an operating handle, a die spindle having a reciprocatory movement through the forward end of the arm A³ and connected with the forward end of the operating lever, a button-holding device, an additional spindle carrying said button-holding device at its lower end and having a reciprocatory movement through the forward end of the arm A³, said button-holding device made reciprocatory independently of the reciprocation of the die spindle, and said arm A³ provided with a seat for a fastening, substantially as set forth. 2nd. In a hand button-setting implement, the combination of a jaw provided with arms A² and A³, one of which arms is provided with a seat for a fastening, clamps to hold a fastening upon the seat, said clamps being vertically reciprocatory and laterally movable, a die spindle sleeved through the forward extremity of the arm A³, a graduated button-holding device, a reciprocatory spindle carried by the arm A³ supporting said button-holding device, said device made adjust-

able to hold different sizes of buttons, and an operating lever fulcrumed to said jaw to reciprocate the die spindle, substantially as set forth. 3rd. In a hand button-setting implement, the combination of a jaw provided with arms A², A³, and an operating handle, a die spindle sleeved through the forward end of the arm A², an operating lever to reciprocate the die spindle, fulcrumed to said handle and itself provided with an operating handle, an additional spindle sleeved through the forward end of the arm A³, an arm G¹ carried by the last-named spindle, and a button-holding device having an adjustable engagement with the arm G¹, substantially as set forth. 4th. In a hand button-setting implement, the combination of a jaw provided with arms A², A³, a die spindle sleeved through the arm A³, an operating lever fulcrumed to said jaw, a yoke connecting the upper extremity of the die spindle to the said lever, spindles H, H¹ sleeved through the arm A³, an arm G¹ carried by the spindles H, H¹, a button-holding plate G having an adjustable engagement with the arm G¹, substantially as set forth. 5th. In a hand button-setting implement, the combination of a jaw A provided with a handle and having at one end thereof arms A², A³, a die spindle reciprocating through the arm A³, a spindle H having a reciprocatory engagement with the arm A³, an adjustable button-holding device carried by said latter spindle provided with means to hold various sizes and kinds of ordinary commercial buttons, and an operating lever fulcrumed to said jaw and provided with a handle adjacent to the handle of said jaw to reciprocate the die spindle, substantially as set forth. 6th. In a hand button-setting implement, the combination of a jaw A provided with arms A², A³, a die spindle sleeved through the arm A³, an operating lever fulcrumed to said jaw to reciprocate the die spindle, a reciprocatory button-holding plate carried by the arm A³, said plate formed with graduated button-holding recesses and with a device to hold a shank button, substantially as set forth. 7th. In a hand button-setting implement, the combination of a jaw provided with arms A², A³, a reciprocatory die spindle, an operating lever fulcrumed to said jaw to reciprocate said spindle, one of said arms provided with an adjustable device having a series of seats for different sizes of fastenings, substantially as set forth. 8th. In a hand button-setting implement, the combination of a jaw provided with arms A², A³, a reciprocatory die spindle, an operating lever fulcrumed to the jaw to reciprocate said spindle, spindles H, H¹ sleeved through the arm A³, a button-holding device carried by the spindles H, H¹, and a pressure arm H² to reciprocate the spindles H, H¹, substantially as set forth. 9th. In a hand button-setting implement, the combination of a jaw A, a reciprocatory die spindle sleeved through said jaw, an operating lever to reciprocate the die spindle, and an adjustable button-holding device having a reciprocatory engagement with the jaw, the button-holding device made reciprocatory with the reciprocation of the die spindle and independently thereof, substantially as set forth. 10th. In a hand button-setting implement, the combination of a jaw, a reciprocatory die spindle sleeved through said jaw, an operating lever to reciprocate said spindle, a reciprocatory arm G¹ carried by said jaw, and a button-holding device having a vertically and laterally movable engagement with the arm G¹, substantially as set forth.

No. 54,840. Art of Making Lime.

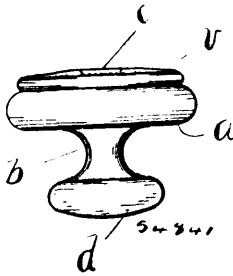
(Art de faire de la chaux.)



Carl Rübel, Louth, Ontario, Canada, 3rd February, 1897; 6 years. (Filed 11th December, 1896.)

Claim.—1st. The mode of building and filling the kiln and burning the lime above set forth. 2nd. The iron or stone grate made from and by the placing of upright stones E, the flat stones or pieces of iron K, from upright stones E, to ledge D, and flat cross stones or pieces of iron N, and the whole in combination. 3rd. The large flat stone H covering the eye C, and the two in combination. 4th. The widening of the kiln from bottom to top. 5th. The flat stones and mortar or sheet iron top covering the kiln. 6th. The placing of layers of coal and limestone in alternate layers from bottom to top.

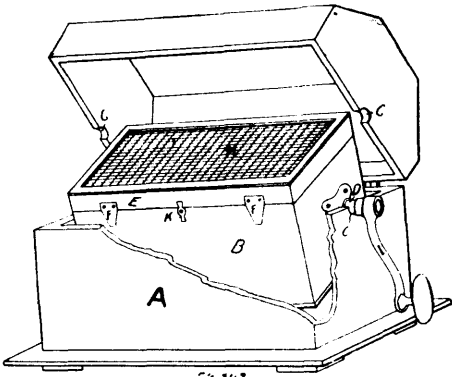
No. 54,841. Collar Button. (*Bouton de collet.*)



Joseph Goldsmith, Providence, Rhode Island, U.S.A., 3rd February, 1897; 6 years. (Filed 26th December, 1896.)

Claim—1st. An article of manufacture, a collar button, having a face of soft cork to come in contact with the skin, substantially as herein shown and described. 2nd. The combination in a collar button of a stem mounted on a foot and having a cap attached thereto containing a disc of zinc at the bottom, with a central stud of copper soldered to the disc on its top, and a face of soft cork on the outside of the zinc disc, substantially as described. 3rd. A collar button having a hollow or recessed cap *a*, a plate of zinc secured in the bottom thereof, and a central stud *c* secured thereto and projecting outwardly beyond the outer edge of the cap, combined with a perforated piece of cork which is fitted around the stud, and secured in position in the cap, substantially as shown. 4th. A collar button having a hollow recessed cap having its outer edges turned inwardly, a disc of zinc secured to the cap, and a stud of copper projecting from this zinc, combined with a circumferentially grooved and perforated piece of cork which surrounds the stud, and has the edge of the cap to catch in its groove, substantially as described. 5th. A collar button having a recessed or hollow cap, and a stud projecting from the centre thereof, combined with a perforated piece of cork which surrounds the stud and forms a bearing upon the button for the neck, substantially as set forth.

No. 54,842. Cinder Sifter. (*Crible à cendres.*)



George H. Meakins and Charles William Meakins, both of Hamilton, Ontario, Canada, 3rd February, 1897; 6 years. (Filed 2nd January, 1897.)

Claim.—A square box made of either wood or metal, and divided in the centre, either hinged at the back, or the top half to slip over the bottom part to form a tight joint, with holes to form journals at each end to receive the axles or trunnions of the cinder sifter box; the cinder sifter box being made square with a narrow top piece forming the lid and kept on its place by means of pins entering into holes made for the purpose of receiving them, the lid having wire gauze on top, and the box having gauze on the bottom, the box having a crank handle and shaft at one end, and an axle or trunnion at the other end, substantially as and for the purpose hereinbefore set forth.

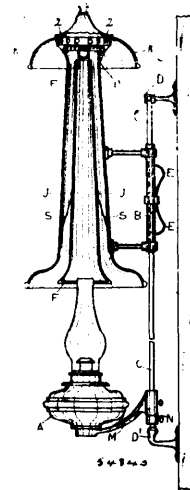
No. 54,843. Device for Heating and Lighting.

(*Appareil à chauffer et éclairer.*)

Peter Fraser, Hamilton, Ontario, Canada, 3rd February, 1897; 6 years. (Filed 8th January, 1897.)

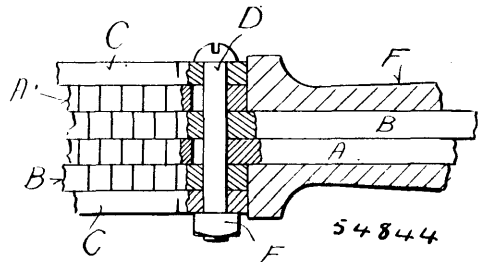
Claim.—1st. In a device such as described, the combination with the burner, its chimney, and the round tapered heater having bell mouth and a discharge at the top, the round tapered radiator suspended concentrically within the heater with its lower end at the top of the chimney, means for positioning the lower end of the radiator and independent supports for the burner and heater, substantially as described. 2nd. In a device such as described, the combination with the burner, its chimney, and the long tapered radiator suspended over the chimney in position to receive the heated products passing therefrom, of the bell mouth of the heater surrounding the radiator with its walls parallel therewith and

springs to position the radiator within the heater, substantially as described. 3rd. In a device of the character described, the combi-



nation with the burner, the radiator suspended from the perforated cap on the heater above the burner in position to receive the heated products from the same and the heater surrounding the radiator, substantially as described. 4th. In a device of the character described, the combination with the vertical bar, the heater provided with arms which are secured into a vertical slide which is capable of sliding on said vertical bar, a spring secured to the slide and its ends capable of engaging with the bar, substantially as described. 5th. In a device of the character described, the combination with the vertical swivel bar, a horizontal swivel arm lamp with collar support capable of vertical adjustment on said bar, to raise and lower said lamp, substantially as described.

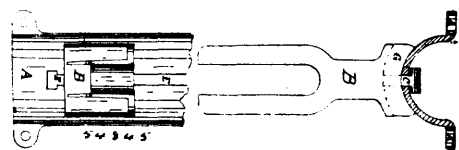
No. 54,844. Rasp. (*Râpe.*)



Edward Hue Cooper, George Augustus Bowen, Ebenezer H. Cameron, and Charles Louis Muentzer, all of Fond du Lac, Wisconsin, U.S.A., 3rd February, 1897; 6 years. (Filed 2nd December, 1896.)

Claim.—1st. A rasp, comprising a plurality of bars held together by suitable means and each provided with a series of transverse teeth. 2nd. A rasp, comprising a plurality of bars held together by suitable means and each provided with a series of transverse teeth extending its full width. 3rd. A rasp, comprising a plurality of transversely toothed bars alternately adjustable in a longitudinal direction and held together by suitable means. 4th. A rasp, comprising a plurality of transversely toothed bars, all of which are provided with apertures, the latter in each alternate bar being elongated, and connecting devices such as bolts or screws engaging said apertures. 5th. A rasp, comprising a pair of fender-bars, a plurality of transversely toothed bars intermediate of the fender-bars, and suitable means for holding all the bars together.

No. 54,845. Drill. (*Foret.*)

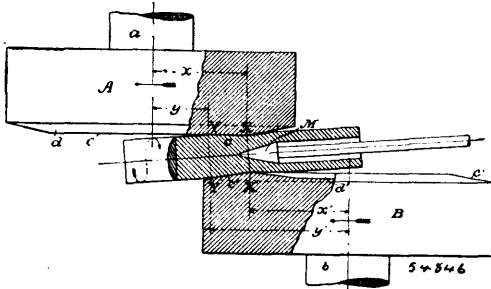


A. B. Jardine & Co., assignee of Peter Jardine, all of Hespeler, Ontario, Canada, 4th February, 1897; 6 years. (Filed 23rd November, 1896.)

Claim.—1st. The table arm B, in combination with the link C and the pillar A, as and for the purpose specified. 2nd. The table arm B, having the annular groove G in combination with the link C and the pillar A, as and for the purpose specified. 3rd. The link C, in

combination with the table arm B and the pillar A, as and for the purpose specified. 4th. The pillar A, in combination with the link C and the table arm B, as and for the purpose specified.

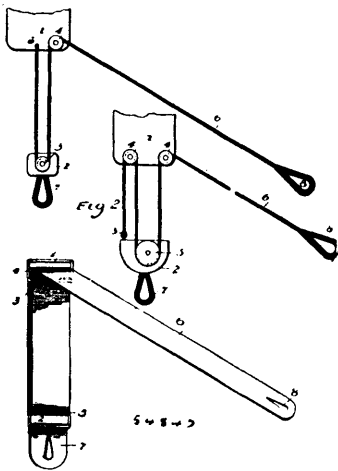
No. 54,846. Machine for Piercing Metallic Ingots.
(Machine pour percer des lingots métalliques.)



Ralph Charles Stiefel, Elwood City, Pennsylvania, U.S.A., 4th February, 1897; 6 years. (Filed 7th December, 1896.)

Claim.—1st. The combination of two parallel discs revolving in the same direction and overlapping each other, one of said discs being bevelled at its outer edge, which bevelled surface is opposed to a portion of the plane surface of the other disc, the outer diameter of this plane surface and the inner diameter of the bevelled surface opposed to it being substantially the same and the edges formed by both diameters intersecting the same transverse plane through the pass between the discs, the angles of the opposing surfaces converging to this plane which is at the narrowest part of the pass, with a conical mandrel lying in the axis of the pass at its exit side, substantially as set forth. 2nd. The combination of two parallel discs revolving in the same direction, bevelled at the edges of their adjacent faces and overlapping each other so that the bevelled portion of one disc lies opposite a flat portion of the other disc, the edges formed by the smaller diameters of the bevelled portions of the discs intersecting the same transverse plane through the pass between the discs whereby the sides of the pass first converge to this plane and then diverge beyond it, with a piercing mandrel located between the diverging sides of the pass and exactly in axial line of the pass, substantially as hereinbefore set forth.

No. 54,847. Suspender. (Bretelles.)



Edwin F. Merwin, New York, State of New York, U.S.A., 4th February, 1897; 6 years. (Filed 4th November, 1896.)

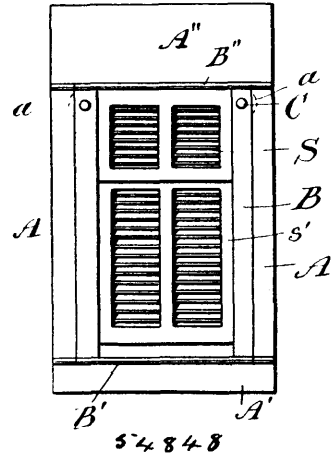
Claim.—In a suspender and attachment, a cord or web having a button-hole upon its free end, means to which its opposite end is attached adapted to be connected to the shoulder strap, the said cord or web being looped or doubled upon itself, intermediate its ends, suitable guiding devices over which the cord or web passes, and a button-hole loop device loosely carried by the looped portion of the cord or web, substantially as described.

No. 54,848. Sash and Frame. (Croisée et cadre.)

Horace W. Chamberlin, Ottawa, Ontario, Canada, 4th February, 1897; 6 years. (Filed 5th January, 1896.)

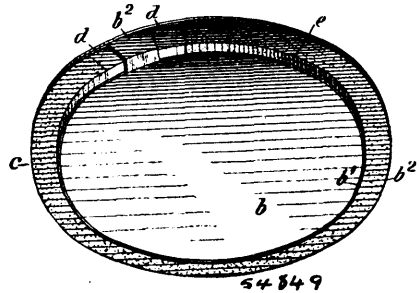
Claim.—1st. In frames for sash and blinds, the combination of a casing enclosing an opening formed in a wall or structure and consisting of jambs, sill and head and having stops on one side and a removable frame adapted to fit in said casing and containing all movable glazed or slatted sash and consisting of jambs, upper sill and head rail, and means of securing said removable frame within

said casing, substantially as set forth. 2nd. In frames for sash and blinds, the combination of jambs, sill and lintel enclosing an open-



ing in a wall or other structure, stops on one side of said jambs, fillets in the angles of said jambs and stops lined with elastic material, a groove in the upper surface of the sill, a removable frame fitting in said opening and consisting of jambs, sill and head rail, checks provided at the angles of said jambs to receive the fillets above referred to and a tongue on the lower side of the upper sill to fit the groove in the lower sill, and means for securing the top of said removable frame within said opening, substantially as set forth. 3rd. In sash and blinds, the combination of jambs forming part of a removable frame fitting into an opening, a sill connecting said jambs at the lower end and a top rail connecting them at the upper, sashes having the outer edges of their stiles bevelled so that the outer face is larger than the inner, bevel bottomed grooves in one jamb adapted to receive the bevel-edged stiles of the sashes on one side, rectangular grooves in the other jamb opposite said sash stiles, a bevelled slat in each said groove fitting the bevel edged stile of the sash and springs between said slats and the bottom of said grooves, substantially as set forth. 4th. In sash and blinds, the combination of bevelled edges on the sash stiles so that their outer face is larger than the inner, jambs forming part of a frame in which said sash is adapted to slide, a rectangular groove in one of said jambs opposite each sash stile, a bevel faced slat in each groove fitting the bevel edged sash, a space between the rear of said slat and the bottom of said groove, blocks secured to each of said slats, countersinks in said jamb in the bottom of said grooves and small countersinks in said blocks, and the countersinks for the blocks in the jamb adapted to receive the ends of a spring and a spiral spring the ends of which are held in said small countersinks and adapted to press said slats outwardly against the edges of the sashes, substantially as set forth.

No. 54,849. Sheet-Metal Can. (Bidon en feuille de métal.)



Max Ams, New York, State of New York, U.S.A., 4th February, 1897; 6 years. (Filed 7th January, 1897.)

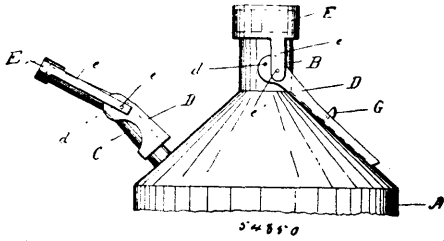
Claim.—The combination of a sheet-metal can with a flanged and countersunk cover and with an adhesive coating secured to the cover, and consisting of rubber cement and an asbestos film, substantially as and for the purpose specified.

No. 54,850. Can Closure. (Fermeture de bidon.)

Abraham Joyce and William Fairbairn, both of Calabogie, Ontario, Canada, 4th February, 1897; 6 years. (Filed 7th January, 1897.)

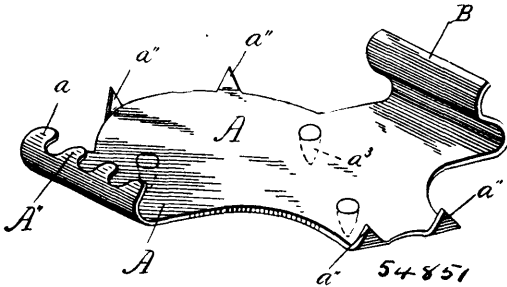
Claim.—1st. The combination, with the nozzle or spout of a can, of a forked lever pivoted on pins projecting from the nozzle or spout, and a cap pivoted to the said lever out of line with the said pins and closing the said nozzle or spout when the said lever is depressed, substantially as set forth. 2nd. The combination, with the nozzle or spout of a can, of a forked lever pivoted on pins projecting from

the said nozzle or spout, a cap pivoted to the said lever out of line with the said pins and closing the said nozzle or spout when the



said lever is depressed, and a catch for retaining the said lever in its depressed position, substantially as set forth.

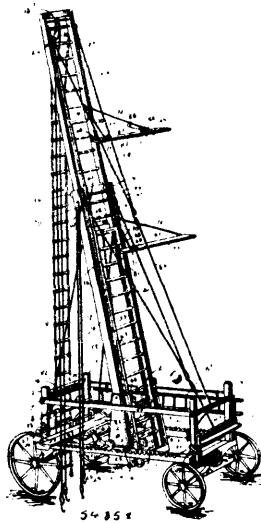
No. 54,851. Ice Creeper. (Grappin.)



Odilon Feher and François X. Guillaume Charland, both of Montreal, Quebec, Canada, 4th February, 1897; 6 years. (Filed 9th January, 1897.

Claim.—1st. An ice creeper comprising the plate having turned over edges, and having pointed projections upon its lower surface, substantially as described. 2nd. An ice creeper comprising the metal plate having turned over edges to engage the edges of a shoe heel, and having pointed projections to engage the face of the heel, and projections on the lower face of said plate, substantially as described.

No. 54,852. Extension Ladder. (Echelle à rallonge.)



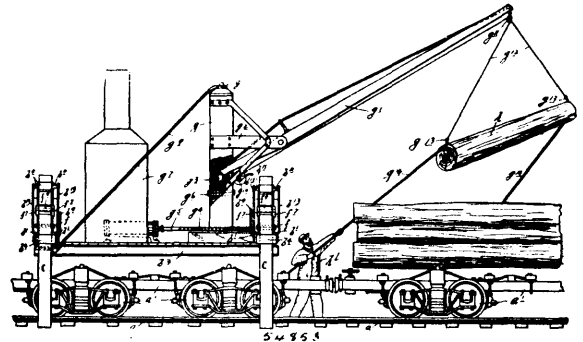
Henry Charles Hardouin, Chester, Pennsylvania, U.S.A., 4th February, 1897; 6 years. (Filed 28th December, 1896.)

Claim.—1st. The combination of a truck having parallel tracks, a carriage mounted upon said tracks and provided with upper and lower guide-strips respectively, engaging the upper and lower surfaces of the tracks, the lower guide-strips being rabbeted or channeled to engage depending flanges on the tracks, means for moving the carriage upon the tracks, and an extension ladder mounted upon the carriage and provided with operating devices, substantially as specified. 2nd. The combination with a truck provided with end uprights, of a transverse rolling-support mounted between the rear uprights below the plane of the upper ends thereof, a carriage mounted upon the track for forward and rearward movement, an extension ladder pivotally mounted upon the carriage and adapted, when in its horizontal position, to fit between the upper ends of the front and rear uprights, and rest in rear of its pivot upon said rolling-support, and means connected to the main or lower ladder-

section to elevate and lower the same. 3rd. The combination with a ladder, of a gang-plank provided at its inner end with a hook for engagement with the rounds of a ladder, and flexible supports connected respectively to the inner and outer ends of the plank and at opposite sides thereof, said flexible supports being connected at their upper ends and provided with a hook for engagement with an upper round of the ladder, substantially as specified. 4th. The combination with a ladder, of a gang-plank provided at one end with a hook, a short flexible support secured at its lower end to the plank opposite said hook, a long flexible support connected to the other end of the plank upon the same side as said hook, said long and short supports being connected at their upper ends, and a hook arranged contiguous to said point of connection, substantially as specified. 5th. The combination with an extension ladder, of a gang-plank provided at its inner end with a hook and a contiguous lateral projection, and flexible supports connected at their lower ends to the opposite side edges of the plank, respectively, at its inner and outer ends, said flexible supports being connected at their upper ends and provided with a second hook, substantially as specified. 6th. The combination with an extension ladder, of a gang-plank provided at its inner end with twin contiguous hooks and upon its side edge contiguous thereto with a second hook, flexible supports connected at their lower ends, respectively, to the opposite side edges of the plank and respectively at the inner and outer ends thereof, and means arranged at the upper ends of said supports for engaging a round of the ladder above the plane of the plank, substantially as specified. 7th. The combination of a truck provided with tracks, a carriage mounted upon said tracks, means for advancing the carriage in either direction upon the tracks, a ladder having a main section pivotally mounted at an intermediate point upon the carriage, means for elevating and depressing said main section, an upper or auxiliary ladder-section mounted upon the main section, means for extending said upper or auxiliary section, front and rear main guy-ropes connected at their upper ends to the main ladder section, a front auxiliary guy-rope connected at its upper end to the upper or auxiliary ladder-section, and means for taking up slack and adjusting the tension of the guy-ropes, substantially as specified.

No. 54,853. Loading and Unloading Machine.

(Appareil pour charger et décharger.)



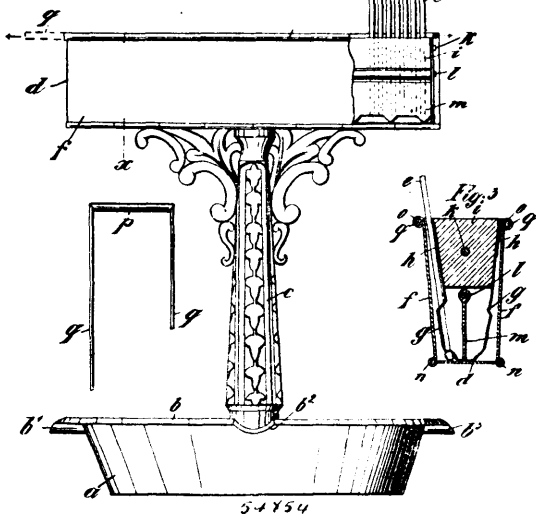
Frederick O. Kilgore, Minneapolis, Minnesota, U.S.A., 4th January, 1897; 6 years. (Filed 22nd April, 1896.)

Claim.—1st. The combination with a platform, of legs connected thereto, with freedom for the vertical movement of either of said parts on the other, as a base of resistance, without throwing the structure bottom side up, substantially as and for the purposes set forth. 2nd. The combination with a platform, of legs connected thereto, with freedom for the vertical adjustment of either of said parts on the other, as a base of resistance, and means for locking said parts together in any desired adjustment, substantially as described. 3rd. The combination with a platform, of legs connected thereto, with freedom for vertical movement of either of said parts upon the other, as a base of resistance, and devices, carried by one of said parts and operative on the other, to raise or lower either on the other, at will, according to which is made the base of resistance, substantially as described. 4th. The combination with a platform, of legs connected thereto, with freedom for vertical movement of either of said parts upon the other, as a base of resistance, and power devices, carried by one of said parts and operative on the other, to effect said relative vertical adjustments, substantially as described. 5th. The combination with a platform, of legs connected thereto, with freedom for vertical adjustment of either of said parts on the other, as a base of resistance, power devices carried by one of said parts and operative on the other, to effect said relative adjustments, and means for locking said parts together in any desired adjustment, substantially as described. 6th. The combination with a platform, of legs connected thereto, with freedom for the vertical adjustment of either of said parts on the other, as a base of resistance, motors carried by one of said parts, and sliding grips carried by the other of said parts and subject to said motors, for effecting said relative adjustments, substantially as described. 7th. A loading machine, involving the

combination with a platform adapted to rest upon and over-reach a car, of hoisting mechanism mounted thereon, legs connected with the platform through guides which permit the vertical movement of the platform on the legs, or vice versa, according to which is made the base of resistance, power devices carried by the platform and operative on said legs, for effecting said relative adjustments, and means for locking said platform and legs together in any set position, substantially as described. 8th. The combination, for handling logs and other objects, comprising a swinging crane, a pulley or cable guide at the outer end of the boom, a windless on the crane or crane support, a cable subject to said windlass, over said pulley or guide, and provided with a pair of hook-ended strands, at its outer end, and manipulating poles pivoted to said hooks, all for co-operation, substantially as described.

No. 54,854. Ash Tray and Match Box.

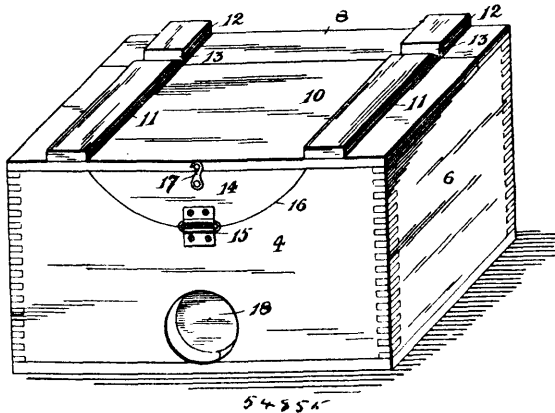
(Réceptacle à cendre et boîte à allumettes.)



Ludwig Feuer, Berlin, German Empire, 4th February, 1897; 6 years. (Filed 7th December, 1896.)

Claim.—1st. In a combined ash tray and match box, the rim portion *b* of the ash tray *a* provided with numbered grooves similar to *b*¹, *b*² and *b*³ for holding lighted cigars substantially as herein set forth. 2nd. In a combined ash tray and match box, the match box *a* having movable walls *f* which are secured by the catch *p*, the matches being arranged one by one in rows along said walls, and slightly pressed to the latter by means of an india-rubber block *i* which is placed inside the match box, and conjointly with said walls *f* cause the matches to be rubbed upon the frictional surface *h* when pulled sharply out. 3rd. In a combined ash tray and match box the arrangement of a U-shaped catch *p*, the parallel legs or side stems *q* of which are of different lengths in order to facilitate the insertion of same into suitable tubes *o* of the match box walls.

No. 54,855. Box. (Boîte.)

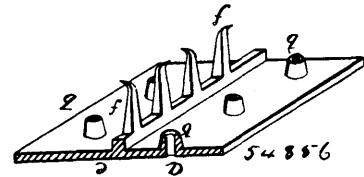


Louis Treflé Cormier, Three Rivers, Quebec, Canada, 4th February, 1897; 6 years. (Filed 7th January, 1897.)

Claim.—1st. As a new article of manufacture, a box for biscuits and the like, having a hand hole closed by a hinged door in the upper part of the front, a lid on the top of the box and a glazed aperture in the lower part of the front, substantially as set forth. 2nd. In a box for biscuits and the like, the combination with the front of the

box having an aperture cut in the upper part thereof, of a hinged door fitting the said aperture and a suitable fastening securing the said door, substantially as set forth.

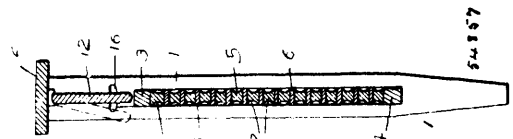
No. 54,856. Belt Fastener. (Attache de courroie.)



James McDonald, Gloversville, New York, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—A belt fastener, comprising a back plate having hollow lugs projecting from its belt side and adapted to enter holes in the adjacent ends of the belt and to receive fastening devices, such as screw-bolts, a mid-rib and hooks projecting from the said mid-rib and adapted to be turned down into the adjacent ends of the belt to which the fastener is applied, substantially as and for the purpose described.

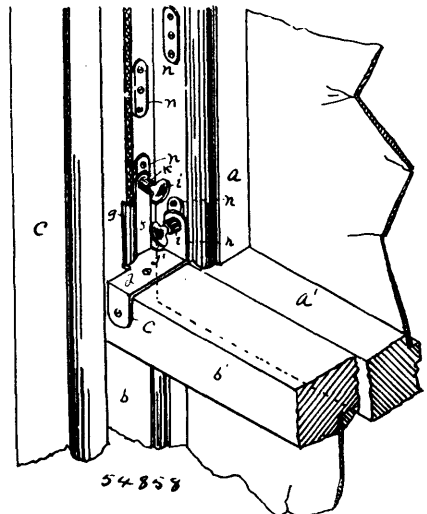
No. 54,857. Washboard. (Planche à laver.)



Melvin Peck, Mishawaka, Indiana, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—A washboard comprising mortised or slotted side pieces and transverse end pieces secured thereto, forming the frame, in combination with wooden strips terminating between said side pieces, alternate metal strips extending into the mortises or slots of the side pieces, and metal rods passing through said wooden and metal strips, substantially as described.

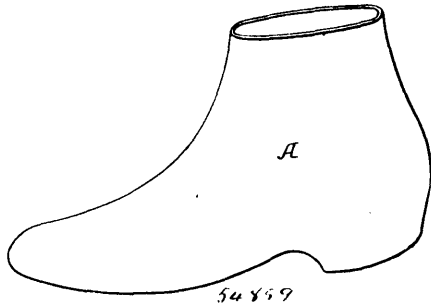
No. 54,858. Sash Fastener. (Arrête-croisée.)



Alvin N. Woodard and Abraham Small, both of Mansfield, Ohio, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. The herein described sash-fastener, or window-lock, comprising a male member, composed of a horizontal piece *d*, the upper projection *f* extending laterally from the horizontal piece *d*, and adapted to the jam of the window and provided with a set screw *i*, one or more female members with which the set screw co-operates, a second upward projection *h*, extending from one end of the horizontal piece and in line with the stile of a sash, and having a set screw *j* for co-operating with female members in said stile, substantially as set forth. 2nd. As an improved article of manufacture, the herein described sash fastener, or window lock, composed of the horizontal piece *d*, lip *e*, upward projection *f* having a set screw for engagement with a complementary member, and also having the curved extension *g* to receive the sash-cord, the projection *h* having a set screw for co-operation with a complementary female member, substantially as specified.

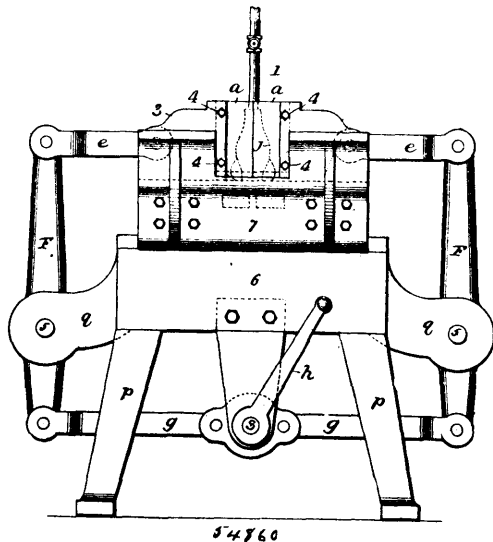
No. 54,859. Manufacture of Boots, Shoes, etc.
(Fabrication de chaussures, etc.)



Henry James Doughty, Providence, Rhode Island, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. The within described improvement in the art of manufacturing rubber shoes, the same consisting in first cutting a blank from stock having a fabric on one face, then forming the blank into a shape approximating that of a finished article with the fabric inside, then imparting the desired finish to the outer face of the article by expanding the article by air pressure within a finishing mould while the composition face is maintained in a plastic condition and then vulcanizing the article upon a suitable last, substantially as set forth. 2nd. In the manufacture of rubber shoes, supporting the article to be finished and vulcanized upon a flexible last within a finishing mould, while expanding the last by internal air pressure, substantially as set forth. 3rd. In the manufacture of rubber shoes, first applying the article to be finished and vulcanized to a flexible last, then expanding the last and article thereon within the finishing mould, and then vulcanizing the article upon the last, substantially as set forth. 4th. The combination in a finishing apparatus for the manufacture of rubber shoes, of a mould in separable sections, means for heating the sections, an expansible last, and means for expanding the last within the mould, substantially as described.

No. 54,860. Support for Boots and Shoes.
(Support pour chaussures, etc.)



Henry James Doughty, Providence, Rhode Island, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

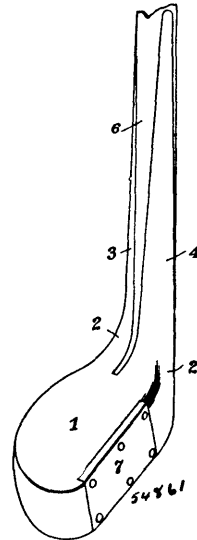
Claim.—1st. A support for shoes, etc., consisting of a shoe-shaped hollow shell open at the top and having closed sides and bottom, all of flexible material, with stiffening means at the sides making the upper self-supporting, substantially as described. 2nd. The combination in a support for shoes, etc., of a flexible shell, stiffening means extending along the edges of the sole portion of the shell, and also projecting upwards at the sides and heel, substantially as and for the purpose set forth.

No. 54,861. Golf Driver. (Baton pour jeu de golf.)

Warren R. Briggs, Bridgeport, Connecticut, U.S.A., 4th February, 1897; 6 years. (Filed 13th March, 1896.)

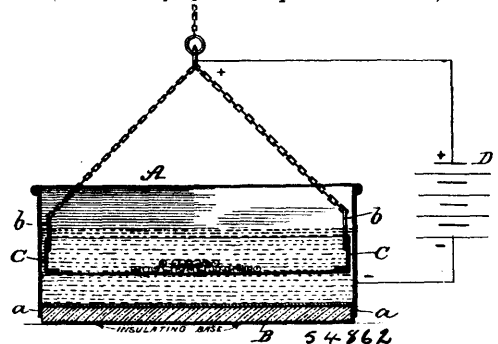
Claim.—1st. A golf driver comprising a head and a forked neck made from a single piece of straight grained wood bent to bring said head and neck to the proper angle with respect to each other, the bases of said forks joining respectively the front and rear portions

of said head while the inner faces of said forks are in vertical planes which are at right angles to the bottom of said head and are sub-



stantially parallel with the face of the head, the grain of said neck and head running in a direction parallel with said face, the handle having its lower portion tapered and fitting snugly between said forks throughout their length, and suitable means for binding said handle and forks firmly together, substantially as set forth. 2nd. The combination of the head and neck made from a single piece of straight grained wood bent to bring said head and neck at the proper angle with respect to each other, said neck being cut lengthwise to form a tapered opening whose lower wall extends into the head in a vertical plane and is parallel with said neck whereby forks are formed whose inner faces are in vertical planes at right angles to the bottom of the driver head and substantially parallel with the driving face of said head, the grain of said head and neck running in a direction parallel with said face, the handle having its lower extremity shaped to fit snugly against said wall within said opening throughout its length, and means for firmly uniting said forks and handle, substantially as set forth.

No. 54,862. Method of Preparing Dentists' Gold.
(Méthode de préparer l'or pour les dentistes.)



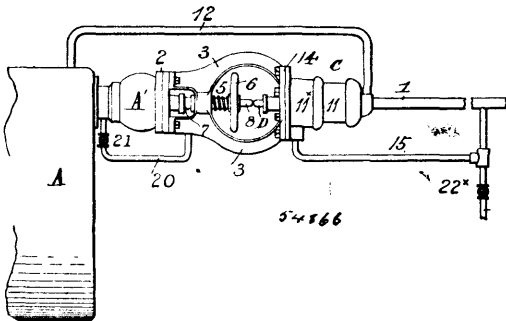
Chauncey A. Flower, New Bethlehem, Pennsylvania, U.S.A., and Edmond H. Newby, St. Catharines, Ontario, Canada, 4th February, 1897; 6 years. (Filed 23rd November, 1896.)

Claim.—1st. The method of preparing gold for dental purposes, consisting in heating it to a temperature approximating the melting point, to establish its granular form, then suddenly cooling it to expand the granules and render the gold soft and cohesive, then again subjecting it to a heat of about 220° Fahrenheit and allowing it to remain at that temperature for a period, substantially as described, to render it tough and tenacious. 2nd. The method of preparing gold for dental purposes, consisting in heating it to a temperature approximating the melting point, to establish its granular form, then suddenly cooling it to expand the granules and render the gold soft and cohesive, then again subjecting it to a heat of about 250° Fahrenheit, allowing it to remain at that temperature for a few minutes and to gradually cool, then running the temperature up to 350° to 500° Fahrenheit, holding it at that for a few minutes and then allowing it to cool, substantially as and for the purpose described. 3rd. The process of treating gold for the use of dentists, which consists in first heating it as described, and then subjecting it to a cooling effect, or and again heating and then subjecting it to an electrified bath, substantially as and for the purpose described.

in place of the to and fro guided link chain, the arrangement of a knife blade. 5th. In a mowing and reaping machine, as in claims 1-4, a steering arrangement in which the turnable front axle can be operated by a chain from the back part of the machine by means of levers, on the axles of the chain guiding rollers. 6th. Mowing and reaping machines, as in claim 1, in which the frame plate is composed of two parts, of which each part possesses a running wheel axle from which by means of disengageable bevelled wheels a horizontal crank disc is operated so that in the complete form the crank disc of the back axle by means of the draw rod operates the knife chain as in claim 1, said plate having a corn delivery device, whilst the front part can be used by itself alone as a corn reaping or mowing machine worked by hand, the crank disc of its wheel axle being coupled by a draw rod with a guiding or tension roller of the knife blade. 7th. A mowing and reaping machine, as under claim 6, in which the impulsion of the cutting device is effected from the middle driving shaft, not by the said crank shaft but by impulsion of straps.

No. 54,866. Safety Valve for Steam Boilers.

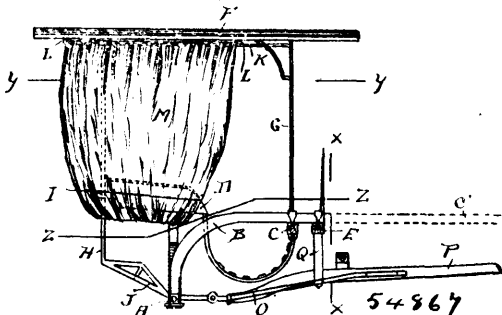
(Soupape de sûreté pour chaudières à vapeur.)



Georges J. N. Carpentier, Newport News, Virginia, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. A safety device for steam-boilers, comprising a stop-valve formed with a stem projecting beyond the valve casing, a steam pipe leading from the valve-casing, a steam cylinder having chambers of different diameters and arranged with the chamber of greater diameter next adjacent to the valve-stem, a pipe connection leading from the boiler into the smaller chamber of the cylinder, a pipe connection leading from the steam pipe into the larger chamber of the cylinder, pistons in the cylinder having heads fitted to the respective chambers thereof, and the rod of the pistons being arranged in alignment with the valve stem and to stand normally free from the projecting end thereof, and to contact therewith and close the stop-valve when the pressure in the steam pipe ceases. 2nd. In a safety device for steam-boilers, the combination with the stop-valve, the boiler and the steam pipe, of a steam cylinder having chambers of different diameters, a piston rod provided with two piston heads to fit the said chambers, a return steam pipe leading from the larger cylinder chamber to the steam pipe, a steam escape pipe in the return steam pipe, and a valve in the escape pipe.

No. 54,867. Vehicle. (Véhicule.)



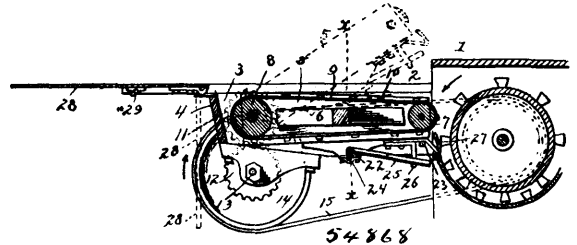
John Appleton, Middletown, California, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. In a vehicle of the class described, the combination with suitable wheels, axle, and body of the shafts B rigidly attached to the axle and cut off immediately in front of the body, the draft-irons N rigidly attached to and near the ends of the axle, the pole O, P, suitably attached to such draft-irons N, the cross-bar E rigidly attached to the front end of the shafts B, the double brace Q, rigidly attached to the cross-bar E, and provided with the inverted U-shaped curve R, such curve R being adapted to engage with the pole P, and the clip S adapted to embrace the pole P, and the cross-bar E, all arranged substantially as shown and described. 2nd. In a vehicle of the class described, the combination of the axle, the body mounted on springs arranged on and connected with the axle and having the rear guide-lug I, the shafts B, rigidly attached

to the axle and connected to the forward cross-bar of the body, the bars G, connected to and extending upwardly from the shafts B, the bar H, extending up through the guide-lug I, on the body and rigidly connected at its lower end to the axle A, the top secured upon the bars G and H, the curtain rod connected with the top, and the curtain suspended from the curtain-rod, substantially as and for the purpose set forth.

No. 54,868. Feeder for Threshing Machines.

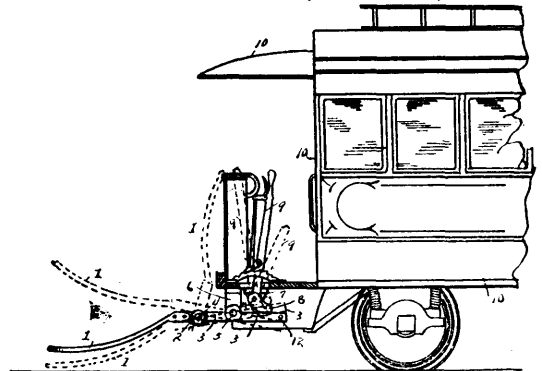
(Alimentateur pour moulins à battre.)



Arthur E. Pratt, Andover, South Dakota, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. In a feeder for threshing machines, the combination of a main frame, a carrier frame, a shaft journaled to the outer end portion of the main frame and pivotally supporting the carrier frame, means for supporting the carrier frame at its delivery end, a crank at one end of the aforesaid shaft, a pan or plate supported by and movable with the carrier frame and located immediately below the delivery end thereof, a lever fulcrumed to the main frame and having connection with the crank of the shaft pivotally supporting the carrier frame, and an arm operatively connected with the pan or plate for imparting a shaking or reciprocating movement thereto, and movable with the carrier frame and having detachable connection with the operating lever, substantially in the manner and for the purpose set forth. 2nd. In a feeder for threshing machines, the combination of a main frame, a carrier frame having pivotal connection at its outer end with the main frame, means for supporting the carrier frame at its delivery end, a shaking pan or plate having connection with the carrier frame and supported immediately below the delivery end thereof, a shaft having a crank portion to which the front end of the shaking pan or plate is connected, and having a pendent arm, a substantially L-shaped lever fulcrumed to the main frame and having its horizontal portion apertured to receive the pendent arm of the said shaft, and having its vertical member formed with a series of openings, a crank connected with a journal of a carrier-supporting roller, and a pitman adjustably connecting the said crank with the vertical member of the L-shaped lever, substantially in the manner set forth and for the purpose described. 3rd. In a feeder for threshing machines, the combination of a main frame, a carrier frame having pivotal connection at its receiving end with the main frame by extensions of the front roller journals, stops applied to the main frame and supporting the rear or free end of the carrier frame, a rod having its ends bent vertically and secured to the carrier frame, a shaft journaled to the carrier frame and having a crank portion and a pendent arm, a pan or plate having connection with the said crank portion and supported by and movable on the aforesaid rod, a substantially L-shaped lever fulcrumed to the main frame and having its horizontal portion apertured to receive the pendent arm, a crank applied to one of the pivotal journals, and a pitman adjustably connecting the crank with the vertical member of the L-shaped lever, substantially as shown and for the purpose described.

No. 54,869. Car Fender. (Défense de chars.)

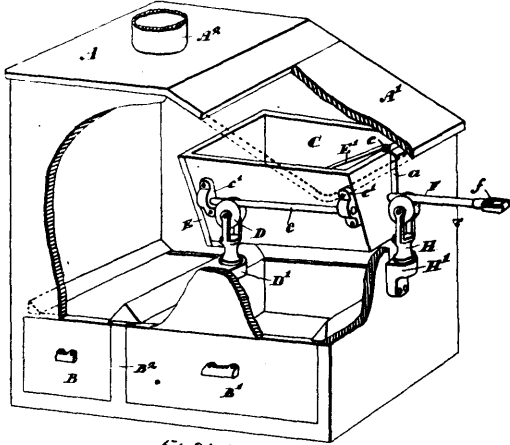


George B. Hoak, Pittsburg, Pennsylvania, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—In a car fender, the combination of the levers horizontally hung under the car platform and connected together at their inner

or rear ends, the cross-bar hinged to the forward ends of said levers and having secured thereto the fender proper, the cross-rod also hung upon the under side of said car platform and carrying fixed cams bearing upon the said levers, and the hand-lever secured to said cross-rod and provided with a pawl in engagement with a rack secured to said car platform, substantially as set forth.

No. 54,870. Cinder Sifter. (*Crible à cendres.*)

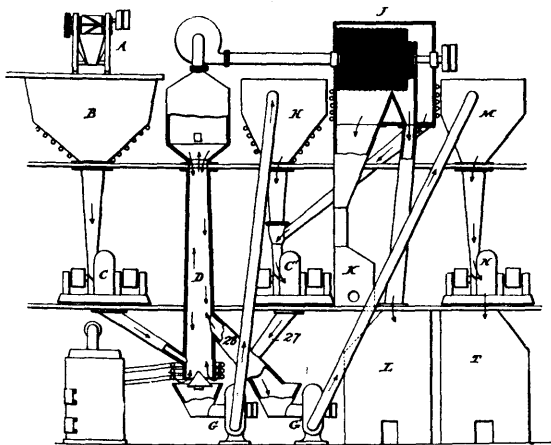


54870

John Clarke, Orangeville, Ontario, Canada, 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. In a cinder sifter, the combination with the casing A, of a sifting box provided with wire sieve, suitable supports therefor and means for shaking the same upon such supports, and a hinged flap at one end of the box designed to be opened when the box is dumped, as and for the purpose specified. 2nd. In a cinder sifter, the combination with the casing A, of a sifting box provided with a wire sieve, suitable supports therefor and means for shaking the same upon such supports, a hinged flap at one end and a rod normally connected to the lower end of the flap and secured to the front end of the box and designed to be unloosed and thrust forward when the box is dumped, as and for the purpose specified. 3rd. In a cinder sifter, the combination with the casing A, of a sifting box provided with a wire sieve, suitable supports therefor and means for shaking the same upon such supports, a hinged flap at one end of the box designed to be opened when the box is dumped, a flap in the casing above the box and a rod extending forward from the box designed to raise it into the dumping position, as and for the purpose specified. 4th. In a cinder sifter, the combination with the casing, of the sifting box, guiding rods secured to the side thereof, supporting rollers secured in the side of the box upon which such guiding rods have movement, a slot in the front of the casing, a rod extending through such slot and provided with a suitable handle and supporting roller, as and for the purpose specified.

No. 54,871. Corn Product. (*Produit de blé d'inde.*)



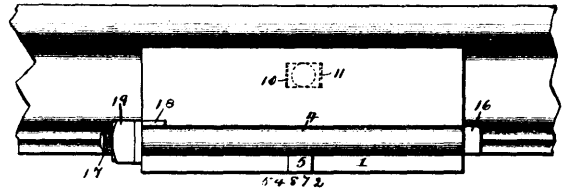
54871

Mark W. Marsden, Philadelphia, Pennsylvania, U.S.A., 4th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. The within described corn product consisting of the dried and comminuted fibrous portions of cornstalk, separated from the pith and other detrimental matters, substantially as set forth. 2nd. A new manufacture consisting of the outer fibrous portion of dried cornstalks, ground and mixed with cottonseed or other food material containing different food elements, substantially as

described. 3rd. A new manufacture consisting of the fibrous portion of cornstalks ground or comminuted, and combined with a binding agent and pressed into cakes, substantially as described. 4th. The process hereinbefore described of preparing a product from cornstalks, consisting in separating the fibrous portions of the stalk from the pith and impurities, the said fibrous portions being comminuted and subjected to the action of air, substantially as described. 5th. The hereinbefore described method of preparing product from plants consisting in separating the pith and shell portion and in reducing the latter to a comminuted condition and subjecting it to the action of air, substantially as described. 6th. An apparatus for reducing pithy plants in which are combined cutting and grinding devices, a separator and means for forcing and directing a blast of air through the separator, a hopper and screener, and conduits whereby the reduced products are directed to receptacles and the partly reduced products are carried in circuit until fully reduced, in whole or in part, substantially as described.

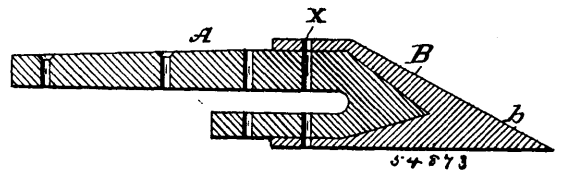
No. 54,872. Rail Fastener. (*Attache de rail.*)



Edward M. Spinning, Cincinnati, Ohio, U.S.A., 4th February, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—1st. In a rail joint, the combination with rail sections, of a chair therefor, fish-plates located on opposite sides of the sections, and a wedge or key seated in the chair and interposed between one of said fish-plates and said chair. 2nd. In a rail joint, the combination with rail sections, of a chair therefor, fish-plates on opposite sides of said rail sections, a wedge-shaped key seated in the chair between one of the plates and said chair, the wedge being provided with a screw-threaded end, and a clamping nut on said end. 3rd. In a rail joint, the combination with rail sections, of a chair therefor, fish-plates located on opposite sides of the rail sections, a dovetailed wedge-shaped key located between one of said fish-plates and the chair, said key being provided with a projecting screw-threaded end, a washer of substantial L-shape received on said end and overlapping the wedge, and a clamping nut bearing against the washer. 4th. In a rail joint, the combination with rail sections having notches in their contiguous ends, of fish-plates located on opposite sides of the rail sections and connected to the chair, and a bolt having a flattened portion which is received in the notches of the rail joints, said bolt passing through the fish-plates.

No. 54,873. Excavator Teeth. (*Dent d'excavateur.*)



54873

George Trim, Joseph F. Pryor and James Fryor, all of Houghton, Michigan, U.S.A., 5th February, 1897; 6 years. (Filed 12th January, 1897.)

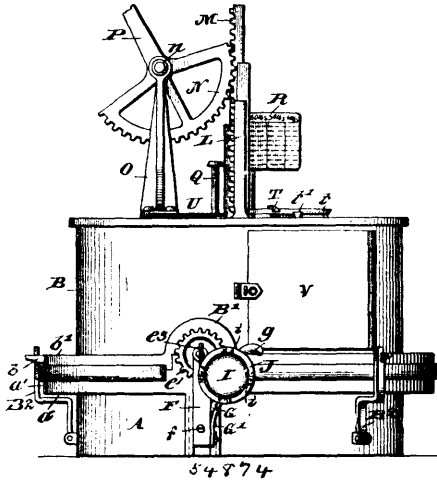
Claim.—1st. The combination with the stub or prong having a shank with a double bevelled end, of a cast steel hollow point adapted to receive the stub or prong and to be secured thereto, as set forth. 2nd. The combination with the stub or prong having a shank to be attached to the dipper and a double bevelled end, of a cast steel tooth having a thin sheath portion to receive the painted end of the stub or prong and a solid point against which the end of the stub or prong bears, substantially as and for the purpose specified.

No. 54,874. Cheese Cutter. (*Machine à couper le fromage.*)

James E. Webster and Richard Henry Webster, both of Aberdeen, assignees of William R. Gorrell, Carsins, all in Maryland, U.S.A., 5th February, 1897; 6 years. (Filed 12th January, 1897.)

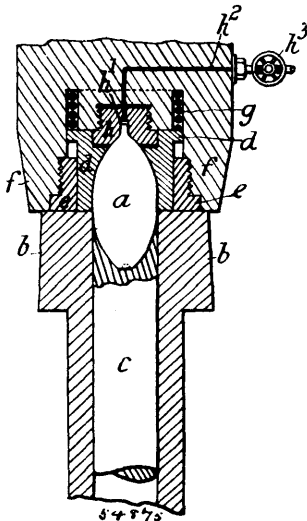
Claim.—1st. The combination of the casing, the cheese-supporting table, a series of rows of annular teeth around the edge of the table, a pinion adapted to gear with said teeth, means for adjusting the pinion from one series of teeth to the other, mechanism for actuating the pinion, and a vertically reciprocating slicing knife. 2nd. The combination of the casing, the cheese-supporting table, a series of rows of teeth around the edge of the table, a pinion adapted to gear with said rows of teeth, a shaft on which said pinion is mounted, a supporting arm for the shaft, an adjusting screw for moving the pinion from one series of teeth to another, and a vertically reciprocating slicing knife. 3rd. The combination of the casing, the cheese-supporting table, a series of rows of teeth at the

periphery of the table, a pinion adapted to gear with said teeth, a cog-wheel secured to the shaft carrying the pinion, a pinion gear-



ing with this cog-wheel, a hand-wheel on the shaft of the pinion, an index in proximity to the hand-wheel, and a vertically reciprocating slicing knife. 4th. The combination of the casing, the cheese-supporting table, an annular row of teeth secured thereto, a pinion gearing with said teeth, a cog-wheel on the shaft of said pinion, a pinion gearing with said cog-wheel, means for turning said last mentioned pinion, and a swinging arm on which the shaft of said pinion is mounted. 5th. The combination of the casing, the cheese-supporting table, an annular series of teeth secured thereto, a pinion gearing with said teeth, a cog-wheel on the shaft of said pinion, a pinion gearing with said cog-wheel, an arm on which the shaft of the pinion is mounted, a spring for pressing the arm toward the cog-wheel, and a vertically reciprocating slicing knife. 6th. The combination of the casing, the cheese-supporting table, means for revolving it, a glass on the top of the casing, a series of curved scale-bars above the glass, a pointer adjustable longitudinally relatively to the scale-bars, and also transversely relatively thereto, and a vertically reciprocating slicing knife.

No. 54,875. Metal Capsule Filling and Closing Apparatus. (*Appareil pour remplir et fermer les capsules métalliques.*)

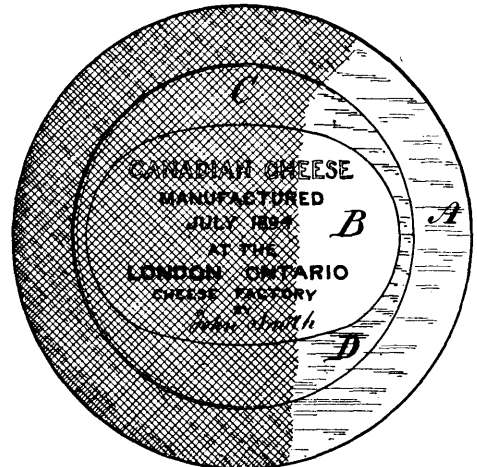


The Aerators Limited, London, England, assignee of Emile Sterné, Paris, France, 5th February, 1897; 6 years. (Filed 12th January, 1896.)

Claim.—1st. The apparatus substantially as herein set forth, for filling and closing metal capsules or containers having fine necks and small inlet apertures. 2nd. In apparatus for filling and closing metal capsules or containers having fine necks and small inlet apertures, the combination of a die to receive the body of the capsule, a plunger in said die to fit the base of the capsule, a spring-actuated die to receive the shoulder of the capsule, a die fixed in the frame and having a recess somewhat smaller than the neck of the capsule, a passage connecting said last mentioned recess with the supply of gas or fluid under pressure and a valve to open and close the conduit of the compressed gas or fluid, the whole being operated

so as first to press the neck of the capsule against the mouth of the small recess in the die connected with the supply of compressed gas or fluid for the filling operation, then to force the neck of the capsule into the said small recess to close the aperture in said neck, and finally to eject the filled and closed capsule, substantially as herein set forth. 3rd. In apparatus for filling and closing metal capsules or containers having fine necks and small inlet apertures, the combination of dies to receive the capsule, a recess in one of such dies communicating by a passage with the supply of compressed gas or fluid and somewhat smaller in diameter than the neck of the capsule, means for pressing the neck of the capsule against the mouth of said recess with sufficient force to secure a tight joint during the filling operation, means for opening and closing the passage for the compressed gas or fluid, means for closing the neck of the filled capsule or container by forcing it into the small recess of the die communicating with the supply of compressed gas or fluid, and means for liberating the filled and closed capsule or container, substantially as herein set forth.

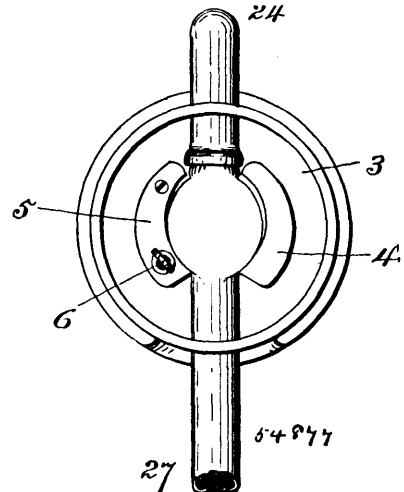
No. 54,876. Method of Branding and Labelling Cheese. (*Méthode de marquer et étiquetter le fromage.*)



William J. Gurd, London, Ontario, Canada, 5th February, 1897; 6 years. (Filed 3rd May, 1895.)

Claim.—1st. The art or mode of branding or marking cheese, which consists in affixing thereto a label below or under a semi-transparent cheese-cloth or bandage adhesively attached by pressure in the process of manufacturing the cheese, whereby the matter printed or marked on the label may be read through the cheese-cloth, for the purpose set forth. 2nd. A cheese having a label fixed thereto by a semi-transparent cheese-cloth or bandage covering the label, whereby the matter on the label is readable through the cheese-cloth, for the purpose set forth.

No. 54,877. Brake Coupling. (*Joint de freins.*)



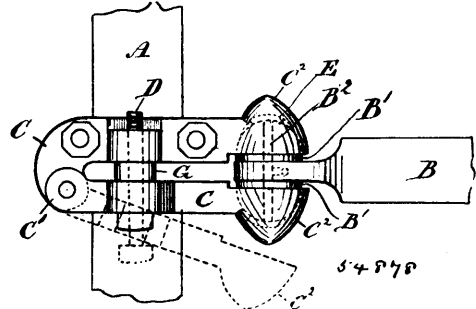
Henry C. Lamb, Denison, assignee of George D. Pettingell, Jefferson, both in Iowa, U.S.A., 5th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. In an air brake coupling, the combination with a draw-bar having a valve, of a hollow coupling bar having valves

adapted to engage the draw-bar valves to open all of said valves simultaneously with the coupling of the cars by said hollow bar, substantially as set forth. 2nd. In an air brake coupling, the combination with a draw-bar having a valve connected to an air brake cylinder of a hollow coupling bar, a valve contained in and closing each end of the coupling bar, as set forth. 3rd. In an air brake coupling, draw-bars having valves provided with projections, combined with a hollow coupling rod having an air passage, like valves in each end of the coupling rod, and having a projection to engage the same projection of the draw-bar valves, as set forth. 4th. In an automatic car and air brake coupling, the combination of the cup secured in the draw-bar to oscillate laterally and vibrate vertically, and a valve secured in the cup and connected to the air brake pipe, with a hollow coupling bar, a valve in each end of the coupling bar, and means in the cup for locking the coupling bar in the cup, as set forth. 5th. A combined car and air brake coupler, comprising a hollow rod having a valve in each end, a valve in the draw-bar, and means for automatically connecting the rod to the draw-bars to couple the cars, the said rod valves adapted to engage the draw-bar valves to couple the latter and open communication between them through the hollow rod, as set forth. 6th. In an automatic car and air brake coupler, the hollow rod having end valves, like valves in the draw-bars connected to the air brake pipes, and means located in the draw-bars to lock the rod ends on the same and couple the cars, all of said valves adapted to be operated by the said rod to couple the air brakes simultaneously with the coupling of the cars, as set forth. 7th. The combination with the draw-bars having valves connected to the air brake cylinders, and a hollow coupling rod having screw-threaded ends, valves adjustably contained in the said ends to make contact with the valves in the draw-bars, as set forth. 8th. The combination of the casing, and the barrel having both edges permanently closed and contained in the casing to form an air chamber between the latter and the barrel, ducts leading into the said chamber only at one end, with a valve having a stem extending through both edges of the barrel casing, and a spring surrounding said stem and engaging the valve and barrel, as set forth. 9th. The combination with the inner and outer screw-threaded valve casing, and a cushion head secured to the casing, of a barrel having a screw-threaded end provided with air ducts leading into a chamber between the casing and barrel, a spring controlled valve having a projection beyond the casing and into and closing the barrel, substantially as set forth. 10th. The combination with the draw-bar, and suitable means for coupling cars, for the standards secured to the draw-bars and having slotted hand shaft bearings, the said shaft having eyes at right angles to each other, to one of said shaft is connected the said coupling means and the other of which a lever from the car top, and a stop upon the shaft operated in the said slots to control the vibratory movement of the shaft, as set forth. 11th. The combination with the draw-bars and suitable means for coupling cars, of a jointed hand shaft having eyes, and projections at right angles to the eyes, standards secured to the draw-bar and having slotted bearings for the shaft, and hand levers supported from the car front and joined to the shaft to permit backward movement of the draw-bars, substantially as set forth. 12th. The combination with the cup and ring of an open top draw-bar having flanges, the removable back stop, and the springs engaging the ring and the said back stop, substantially as and for the purpose set forth. 13th. The combination with the cup having an integral lug, a dog pivoted therein, a coupling bolt carried by the dog, and a valve secured to the cup in the rear of the lug and dog, of a hollow coupling bar, and a valve in the end of the bar having a portion projecting and extending through and between the lug and dog to engage a like projection of the said cup valve, substantially as and for the purpose set forth. 14th. In a combined automatic car and air brake coupling, the combination with the draw-bars having valves, of a hollow coupling rod having valves to engage the draw-bar valves and open communication between the air brake cylinders of a train through said hollow rod simultaneously with the coupling of the cars by said rod, as set forth. 15th. A hollow car coupling rod having valves adapted to be opened simultaneously with the coupling of the cars by said rod, and means contained in the rod for closing the valves simultaneously with the uncoupling of the cars, as set forth. 16th. In an automatic car coupler, the cup pivoted in a draw-bar to oscillate transversely and vibrate vertically, a jaw in the bottom of the cup, and a dog pivoted in the bottom of the cup and carrying a coupling pin, said dog being operated by the link to lock the dog to the cup, and the link head between the jaw and dog, as set forth. 17th. In an automatic car coupler, the cup having a fixed jaw and a pivoted dog, pivot projections upon the bottom of the cup, combined with a ring surrounding the cup and having pivot lugs whereby the cup is held in the ring upon the said projections and lugs, as set forth. 18th. In an automatic car coupler, the combination of the cup having a jaw integral with its inner bottom, a dog pivoted in said bottom and carrying a coupling pin, a removable slotted cover for the cup, and pivot projections on the under side of the cup bottom, with the flanged ring surrounding the cup and having pivot lugs engaging the cup cover, and the removable ring bottom, as set forth. 19th. The combination with a car coupler, of a cup held in a draw-bar to oscillate transversely and vertically, and having a link slot, a jaw integral with the inner cup bottom, a dog pivoted to said bottom and having an arm carrying a coupling pin, and a removable cup top having a slot for the said arm, as set forth. 20th.

The combination with a reach pole provided with an enlarged head or end, of an automatic coupling comprising a circular housing having a reach-pole opening or slot, the cover having a curved slot, a stop integral with the bottom of the housing, a pivoted lock operated by said pole head and carrying a pin adapted to engage a hole in the bottom of the housing and hold the lock in said operated position, substantially as set forth.

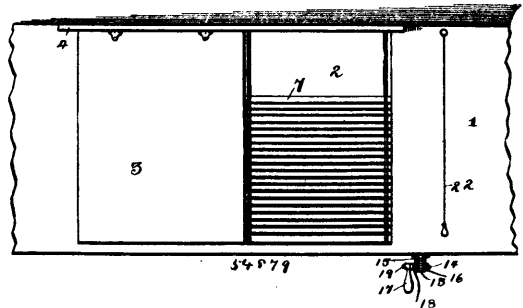
No. 54,878. Thill Coupling. (Armon de limonière.)



Humphrey Baile Young and John Norman Young, both of Brockville, Ontario, Canada, 5th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. The combination with a thill iron B, having a spherical or elliptic head B¹, of the U-shaped coupling bar C, provided with a hinge joint C¹ at or near the middle, both ends of said coupling bar having a cup B² to fit against said head, a binding or clamping screw D passing through both legs of said bar C, and one leg adapted to be clipped to an axle, as set forth. 2nd. The combination with an axle A, of a U-shaped coupling bar C, having one leg secured thereto by a clip F and the other leg provided with a hinge joint C¹, the ends of said bar provided with a cup or socket C², a clamping screw D passing through both legs and drawing the cups toward each other, and a thill iron B, having a head B¹ fitting into said cups, as set forth. 3rd. A thill coupling, comprising a U-shaped coupling bar C, having a hinge joint C¹ and cups C² at the ends, a screw D connecting the legs of said coupling bar, and a thill iron B, having a head B¹ fitting into said cups, as set forth.

No. 54,879. Grain Door. (Porte à grain.)

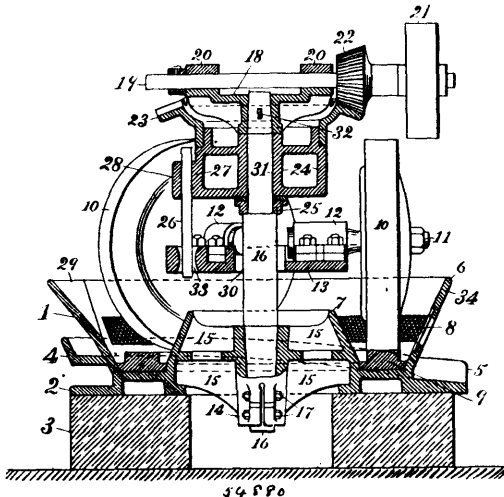


Egbert Barwell and Egbert V. Barwell, both of Buffalo, New York, U.S.A., 5th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. A grain door, composed of a plurality of flexibly connected strips, substantially as specified. 2nd. A freight car or the like provided with a doorway, guideways extending along the doorway and partly across the roof of the car, a grain door movable between the guideways, and means for actuating the grain door, substantially as specified. 3rd. The combination with a flexible grain door and guideways, of a shaft, drums upon said shaft, flexible pieces secured to the flexible door and drums respectively, and means for actuating the drums, substantially as specified. 4th. The combination with a flexible grain door, of a shaft, drums upon said shaft, flexible pieces connected with the drums and with the lower corners of the grain door, a second shaft located below the door, a ratchet lever mounted upon said shaft, and gearing intermediate the two shafts, substantially as specified. 5th. The combination with a car or the like provided with a doorway, of guideways extending along the sides of the door and along the roof of the car, drums located at the juncture of the roof and side of the car, flexible pieces connecting the drums with the lower corners of the grain door, means for actuating the drums, and pawl and ratchet mechanism controlling the drums whereby the door may be permitted to close of its own weight, substantially as specified. 6th. The combination with a flexible door and its guideways, of a shaft above the door, drums upon said shaft, flexible pieces connecting the drums with the lower corners of the door, pawl and ratchet mechanism controlling the shaft, a second shaft below the door, a ratchet lever designed to actuate said last named shaft, and chain and sprocket gear intermediate the two shafts, substantially as specified.

No. 54,880. Roller Crushing Machine.

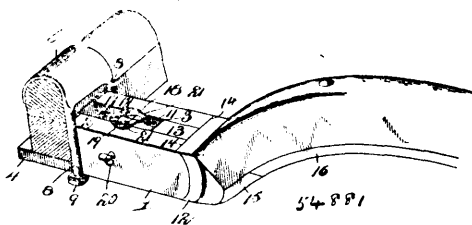
(Machine à brouter.)



William J. Dyer, San Francisco, California, U.S.A., 5th February, 1897; 6 years. (Filed 13th January, 1897.)

Claim.—1st. In a roller crushing machine, a main member or pan to contain and confine the material to be crushed, a die-ring therein and rollers to revolve thereon, a central frame or axis fastened in the centre of the pan, and supporting at its top the driving gearing to impel the rollers, the whole within the pan's contour, combined and operating in the manner substantially as described. 2nd. In a roller crushing machine, a pan or base 1, and the central axis 16 adjustably fastened therein, integral with this axis or rigidly attached thereto, a top frame 18 forming a support for the shaft 19 and the driving elements thereon, a driving-wheel 23 and drum or frame 24, turning loosely on the axis and communicating motion to the crushing rollers, the whole combined and operating substantially as described. 3rd. In a roller crushing machine, the combination of the pan 1, the main axis 16, having the driving gearing supported thereon, the gear-wheel 23 and drum 24, the latter provided with the adjustable driving stems 26, passing loosely through and impelling the plate or frame 13 and the rollers connected thereto, in the manner and for the purposes substantially as described. 4th. In a roller crushing machine, a main supporting pan, a die-ring and crushing rollers therein, a detachable section of the outer wall of the pan, by removal of which the rollers can be taken out of or put into the pan, laterally and without their being lifted, in the manner and for the purposes substantially as described.

No. 54,881. Thill Coupling. (Arnon de limonière.)

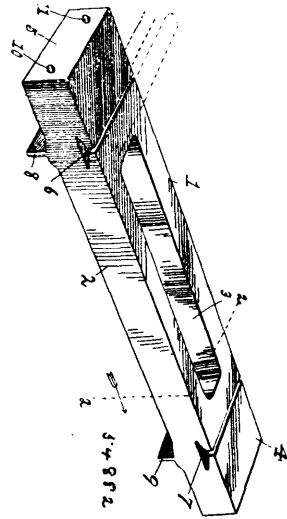


Thomas Clay Edwards and Joseph J. Conner, assignee of George Crane Thompson, all of Salinas, California, U.S.A., 5th February, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—1st. A coupling of the class described, comprising a bearing-block having a convex outer end and provided with a longitudinal channel forming a front guide-slot and enlarged intermediate of its ends to form a bearing-socket and having opposite notches forming an entrance to the same, a coupling member comprising an iron or strap, provided with concave shoulders bearing against the convex end of the bearing-block, a longitudinally-disposed neck rigid with the strap or iron and arranged in the guide-slot, and a ball rigid with the neck and arranged in the bearing-socket, and means for retaining the ball in the bearing-socket, substantially as described. 2nd. A coupling of the class described, comprising a bearing-block having a convex outer end and provided with a longitudinal channel, forming a front guide-slot, enlarged intermediate of its ends to form a bearing-socket and having its inner end threaded, a coupling member composed of an iron or strap having concave shoulders to fit against the convex end of the bearing-block, a longitudinal neck rigid with the iron or strap and arranged in the guide-slot, and a ball rigid with the neck and arranged in the bearing-socket of the block, a longitudinally-disposed screw mounted in the threaded portion of the channel and engaging the ball to retain

the same in the bearing-socket, and a clamping screw mounted on the bearing-block and engaging the longitudinal screw, substantially as described.

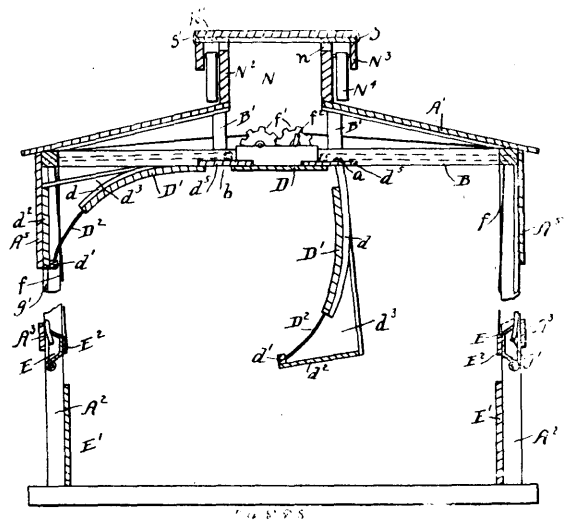
No. 54,882. Railway Tie. (Traverse pour chemin de fer.)



Charles A. T. Peters, Dexter, Missouri, U.S.A., 5th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. A railroad tie, consisting of a bar of iron having transverse recesses in the ends of its upper surface, said recesses being designed to receive the bottom flanges of the rail, and having the vertical opening extending through its centre from near the inside of one rail to near the inside of the opposite rail, and also having air passages extending through its entire length, and lugs projecting downwardly from the under surface of said tie into the roadbed, substantially as specified. 2nd. A railroad tie, consisting of the parallel horizontal bars 1 and 2, said bars being rectangular in cross-section, the rectangular blocks 4 and 5 joining the ends of said bars 1 and 2 and forming the aperture 3 between said bars, said rectangular blocks 4 and 5 having the recesses 6 and 7 in their upper faces and designed to receive the bottom flanges of the rails, the lugs 8 and 9 extending downwardly at right angles from the lower sides of said rectangular blocks 4 and 5, all cast integral, substantially as specified.

No. 54,883. Stock Car. (Char à bestiaux.)



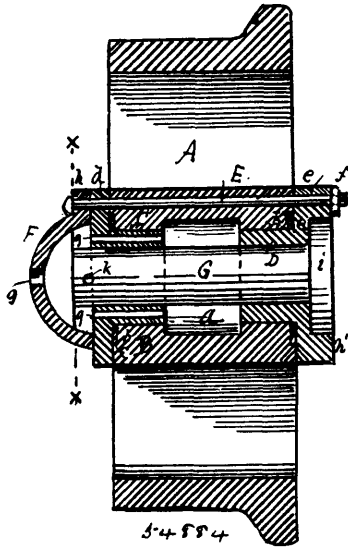
William Cline, Lancaster, Pennsylvania, U.S.A., 5th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. The combination, in a car, of a feed-rack subtending an upper angle of the car, a hinge-connection between one edge of the feed-rack and the car-body and located on one side of subtended angle, and a detachable connection between the other edge of the feed-rack and the car-body and located on the other side of said subtended angle, the detachable edge of the feed-rack being adapted to be swung back into the car, for the purpose specified.

2nd. The combination, in a car, of a feed-rack subtending an upper angle of the car, a hinge-connection between one edge of the feed-rack and the car-body and located on one side of the subtended angle, and a detachable connection between the other edge of the feed-rack and the car-body and located on the other side of said subtended angle, the detachable edge of the feed-rack being adapted to be swung back into the car, said detachable edge of the feed-rack having a pocket or receptacle formed on the inner side thereof, for the purpose specified. 3rd. The combination, in a car, of a feed-rack subtending an upper angle of the car, a hinge-connection between the upper edge of the feed-rack and a portion of the car-body in the plane of a horizontal side of said angle, a detachable connection between the lower edge of said feed-rack and a car-wall forming the vertical side of said angle, the detachable edge of the feed-rack being adapted to be swung back into the car, the upper portion of the feed-rack being constructed of sheeting and the lower portion of slats, for the purpose specified. 4th. The combination, in a car, of a feed-rack subtending an upper angle of the car, a hinge-connection between the upper edge of the feed-rack and a portion of the car-body in the plane of a horizontal side of said angle, a detachable connection between the lower edge of said feed-rack and a car-wall forming the vertical side of said angle, the detachable edge of the feed-rack being adapted to be swung back into the car, the upper portion of said feed-rack being constructed of downwardly-curved sheeting and the lower portion of slats forming a continuation of the curve of the sheeting, for the purpose specified. 5th. The combination, in a car, of a feed-rack subtending an upper angle of the car, a hinge-connection between the upper edge of the feed-rack and a portion of the car-body in the plane of a horizontal side of said angle, a detachable connection between the lower edge of said feed-rack and a car-wall forming the vertical side of said angle, the detachable edge of the feed-rack being adapted to be swung back into the car, and a projection or plate on the inner side of the lower edge of the rack, for the purpose specified. 6th. The combination, in a stock-car, of a feed-rack, subtending an upper angle of the car, a hinge-connection between the upper edge of the feed-rack and a portion of the car-body in the plane of a horizontal side of said angle, a detachable connection between the lower edge of said feed-rack and a car-wall forming the vertical side of said angle, the detachable edge of the feed-rack being adapted to be swung back into the car, the upper portion of the feed-rack being constructed of sheeting and the lower portion of slats, a projection or plate on the inner side of the lower edge of the feed-rack, and a transverse plate closing each end of said feed-rack, for the purpose specified. 7th. In a stock-car, a feed-rack comprising intermediate ribs, end ribs extending below the intermediate ribs, a hinge-connection between the upper ends of said ribs and the car-body, a horizontal bar connecting the lower extremities of the end ribs, sheeting secured to the ribs adjacent to the hinges thereof, and slats having their ends fixed in the lower edge of the sheeting and in said horizontal bar, the lower edge of the feed-rack being adapted to swing back into the body of the car, in combination with means for detachably securing said lower edge of the feed-rack to a wall of the car, for the purpose specified. 8th. The combination, in a stock-car, of a hay-loft arranged in the top of the car and having a side thereof opening into the car, a feed-rack having its upper edge located adjacent to the bottom of the hay-loft and in front of the opening therein, a hinge-connection between the upper portion of the feed-rack and the car-body, the lower edge of the feed-rack being adapted to swing back into the body of the car, and means for detachably securing said lower edge of the feed-rack to a wall of the car, for the purpose specified. 9th. The combination, in a stock-car, of a hay-loft arranged in the top of the car and having a side thereof opening into the car, a feed-rack having its upper edge adjacent to the bottom of the hay-loft and in front of the opening therein, a hinge-connection between the upper portion of the feed-rack and the car-body, an extension from the bottom of the hay-loft over the upper edge of the feed-rack, the lower edge of the feed-rack being adapted to swing back into the body of the car, and means for detachably securing said lower edge of the feed-rack to a wall of the car, for the purpose specified. 10th. In a stock-car, a hay loft arranged longitudinally of the centre of the car, feed-racks comprising downwardly curved ribs, hinged to the joists of the car on each side of the hay loft, the end ribs of each feed-rack extending below the intermediate ribs, horizontal bars connecting the lower extremities of the end ribs, sheeting secured to the ribs, the upper edges of the sheeting being adjacent to and somewhat below the floor of the hay loft, slats forming a continuation of the curves of the sheeting and having their ends secured in the lower edges of said sheeting, and in said horizontal bars, projections or plates attached to the horizontal bars and constructed to form bottoms for the feed-racks, when the same are swung back into the body of the car, and transverse walls closing the ends of the feed-racks, in combination with extensions from the bottom of the hay loft over the edges of the sheeting and means for detachably securing the lower edges of the feed-racks to the walls of the car, substantially as and for the purpose specified. 11th. The combination, in a stock-car, of watering-troughs, journaled in and between the posts of the car, a plate secured to the bottoms of said troughs and adapted to engage the posts when the troughs are upturned between said posts, and means for securing the troughs in such upturned position for the purpose specified. 12th. The combination, in a stock-car, of watering troughs, journaled in and be-

tween the posts of the car, a plate secured to the bottoms of the troughs and adapted to engage the posts when the troughs are upturned between the same, pipes connecting said troughs, and means for securing the troughs in such upturned position, for the purpose specified. 13th. The combination, in a stock-car, of watering troughs, journaled in and between the posts of the car, a plate secured to the bottom of said troughs and adapted to engage the posts when the troughs are upturned between the same, and pipes connecting the troughs and located in recesses in said plates, for the purpose specified. 14th. The combination, in a stock-car, of watering troughs, journaled in and between the posts of the car, sheeting on said posts between the watering troughs, and a plate of the thickness of said sheeting secured to the bottom of the troughs and adapted to engage the posts when the troughs are upturned between the same, for the purpose specified. 15th. The combination, in a stock-car, of watering troughs, journaled in and between the posts of the car, sheeting on said posts below the watering troughs, a plate secured to the bottom of the troughs and adapted to engage the posts when the troughs are upturned and to bear against the sheeting when said troughs are in position for use, for the purpose specified. 16th. The combination, in a stock-car, of watering troughs, journaled in and between the posts of the car, sheeting on said posts between the watering troughs, a plate of the thickness of said sheeting and secured to the bottoms of the troughs, said plate being adapted to engage the posts when the troughs are upturned, and to bear against the sheeting when said troughs are in position for use, pipes connecting the troughs and located in recesses in said plate, and means for securing the troughs in an upturned position, for the purpose specified. 17th. The combination, in a car, of outwardly-projecting studs, or pins, located above a doorway therein, a frame comprising two horizontal bars arranged one above the other and connected at their ends, said studs, or pins, loosely engaging perforations in the upper horizontal bar of said frame, the frame being adapted to be moved back and forth on said studs, a grooved roller located in the space between said horizontal bars and resting upon the lower one thereof, a door constructed to be moved into and out of the doorway, and a strap connecting the spindle of the roller and the door, for the purpose specified. 18th. The combination, in a car, of outwardly-projecting studs, or pins, located above the doorway therein, a frame comprising two horizontal bars arranged one above the other and connected at their ends, said studs, or pins, loosely engaging perforations in the upper horizontal bar of said frame, the frame being adapted to be moved back and forth on said studs, a grooved roller located in the same space between said horizontal bars and resting upon the lower one thereof, a door constructed to be moved into and out of the doorway, a strap connecting the spindle of the roller and the door, and a rod secured to the door and having a hook on the end thereof taking over and above a bar of said frame, for the purpose specified. 19th. The combination, in a car, of outwardly-projecting studs, or pins, located above a doorway therein, a frame comprising two horizontal bars arranged one above the other and connected at their ends, said studs, or pins, loosely engaging perforations in the upper horizontal bar of said frame, the frame being adapted to be moved back and forth on said studs, grooved rollers located in the space between said horizontal bars, both said bars engaging the grooves in the rollers, a rigid bar connecting the spindles of the rollers, a door constructed to be moved into and out of the doorway, and straps connecting the spindles of the rollers and the door, for the purpose specified. 20th. The combination, in a car, of outwardly-projecting studs, or pins, located above a doorway therein, a frame comprising two horizontal bars arranged one above the other and connected at their ends, said studs, or pins, loosely engaging the upper horizontal bar of said frame, the frame being adapted to be moved back and forth on said studs, grooved rollers located in the space between said horizontal bars, both said bars engaging the grooves in the rollers, a rigid bar connecting the spindles of the rollers, a door constructed to be moved into and out of the doorway, straps connecting the spindles of the rollers and the door, a horizontal rod secured to the car below the door, and an extensible, movable connection between the door and the rod, substantially as and for the purpose specified. 21st. The combination, in a car, of a clear-story having ports in the side walls thereof, the top of the clear-story extending out beyond said side walls, longitudinal curtains attached to the sides of said top and depending in front of the ports, and swinging deflectors having their upper ends hinged between the side walls and said curtains, for the purpose specified. 22nd. The combination, in a car, of a clear-story having ports in the side walls thereof, the top of the clear-story extending out beyond said side walls, longitudinal curtains attached to the sides of said top and depending below said ports, and swinging deflectors having their upper ends hinged in the side walls and in said curtains, and extending below the curtains, for the purpose specified. 23rd. The combination, in a car, of a clear-story having ports in the side walls and adjacent to the top thereof, the top of the clear-story extending out beyond said side walls, longitudinal curtains attached to the sides of said top and depending below the ports, swinging deflectors having their upper ends located between and below said ports, said upper ends of the deflectors being hinged in said side walls and curtains and depending below the curtains, stops between the swinging ends of the deflectors to limit the movement thereof, and plates closing the ends of the channels between the side walls and the depending curtains, substantially as and for the purpose specified.

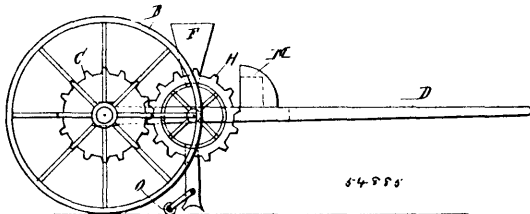
No. 54,884. Lubricator. (*Lubrificateur.*)



Eugene Ewers, Ardmore, Missouri, U.S.A., 5th February, 1896; 6 years. (Filed 14th January, 1897.)

Claim.—In a car-wheel, the axle G, provided with a flange c, i, and having an opening through its outer end, the pin k which passes through the axle and catches against the outer end of the bushing, the two short bushings C, D, each provided with a flange at its outer end to catch over the ends of the hub, and the packing rings c placed in recesses of the hub, combined with the clamping bolts, and the concavo-convex cap F provided with a central opening, the bushing C being provided with openings g, which communicate with the central oil-chamber a between the ends of the bushing, substantially as shown.

No. 54,885. Corn Planter. (*Semoir à blé-d'inde.*)

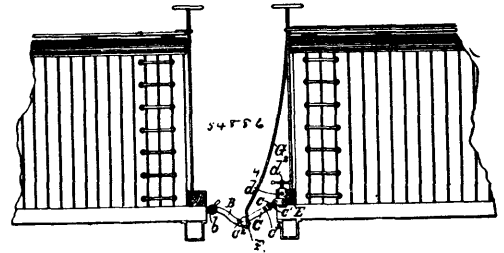


Harry Hall, Satsuma Heights, Florida, U.S.A., 5th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. A corn planter or dropper, comprising an axle having a wheel secured to each end thereof, a head or hub through which said axle passes, two shafts secured to said head or hub, a cylindrical or tubular casing mounted between said shafts, a revoluble casing mounted within said cylindrical or tubular casing, a hopper secured to or connected with the upper side of said cylindrical or tubular casing, a tube connected with the lower side thereof and extending downwardly, a cavity or receptacle formed in the side of said revoluble casing and adapted to communicate with the lower end of said hopper and with the upper end of said tube, a shaft on which said revoluble casing is mounted, and the ends of which extend through the shafts connected with the head or hub, a gear wheel mounted on said axle, and a corresponding gear wheel mounted on said shaft, on which the revoluble casing is mounted, and the tube connected with the cylindrical or tubular casing being provided with a backwardly directed discharge spout or nozzle at its lower end and with a forwardly directed shovel or blade, substantially as shown and described. 2nd. A corn planter or dropper, comprising an axle having a wheel secured to each end thereof, a head or hub through which said axle passes, two shafts secured to said hub or head, a cylindrical or tubular casing mounted between said shafts, a revoluble casing mounted within said cylindrical or tubular casing, a hopper secured to or connected with the upper side of said cylindrical or tubular casing, a tube connected with the lower side thereof and extending downwardly, a cavity or receptacle formed in the side of said revoluble casing, and adapted to communicate with the lower end of said hopper and with the upper end of said tube, a shaft on which said revoluble casing is mounted, and the ends of which extend through the shafts connected with the head or hub, a gear wheel mounted on said axle, and a corresponding gear wheel mounted on said shaft, on which the revoluble casing is mounted, and the tube connected with the cylindrical or tubular casing being provided with a backwardly directed discharge spout or nozzle at its lower end and with a forwardly directed shovel or blade, substantially as shown and described. 3rd. A corn planter or dropper, comprising a cylindrical casing mounted between the shafts thereof, a revoluble casing mounted therein, a gear wheel

connected with the shaft on which the revoluble casing is mounted and adapted to operate in connection with a gear wheel mounted on the axle of the machine, said cylindrical casing being provided with a hopper on its upper side and a tube on its lower side, and said revoluble casing being provided with a cavity or receptacle which is adapted to communicate with said hopper and with said tube, substantially as shown and described.

No. 54,886. Railway Brake. (*Frein de chars.*)



Jesse M. Austin, Woodstock, Ontario, Canada, 5th February, 1897; 6 years. (Filed 14th January, 1897.)

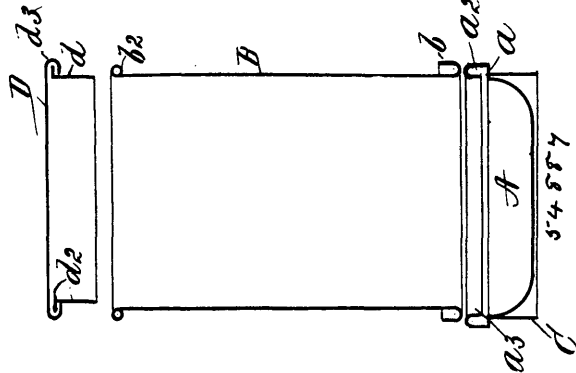
Claim.—1st. In a railway-brake mechanism, the combination with a car provided with a system of automatic brakes, of a car, or cars, arranged in rear of the first said car and unprovided with automatic brakes, a coupling detachably connected to the rear end of the supply-pipe of the automatic brake mechanism, and means connecting each of the cars last referred to with the said detachable coupling whereby on the separating of any two of the cars the said coupling will be detached from the air-pipe and automatic brakes on the forward car will be put into action, substantially as set forth. 2nd. The combination, in a railway-brake mechanism, with a car provided with air-brakes, of a series of cars arranged in rear of such car, a coupling detachably connected to the rear end of the supply-pipe of the brakes on the forward car, and a cable connecting such coupling with the rear car of the train, substantially as and for the purpose set forth. 3rd. In a railway-brake mechanism, the combination with the supply-pipe of a system of air-brakes, of a coupling having a clamp by which it can be secured to a car, and also having means for closing an outlet in the said air-supply pipe, and a flexible connection between such coupling and a car in rear of the air-brake system, substantially as set forth. 4th. In a system of train-brakes, the combination with a car provided with air-brakes, of a coupling having a clamp, by which it can be secured to a car, and means for closing the passage in the supply-pipe for the air-brakes, and a cord or cable having one end connected to said coupling and extending longitudinally of the train to and having its other end connected with the rear car, substantially as and for the purpose set forth. 5th. In a railway-brake mechanism, the combination with the air-supply pipe of a system of air-brakes, of a coupling having at one end a cap for closing the end of the said supply-pipe and at its other end a clamp, adjustably connected to the cap-piece and adapted to be secured to a car, and means on the cap-piece for connecting one end of a draft rope or cable therewith, substantially as set forth. 6th. In a railway-brake mechanism, the combination with the air-supply pipe of a system of air-brakes, of a cap adapted to close an outlet in said pipe, a clamp adapted to be attached to and supported from a car, connecting devices interposed between the cap and clamp, and adapted to be adjusted longitudinally of the former, and means for attaching to the cap-piece one end of a rope or cable by means of which the cap can be disengaged from the air-pipe, substantially as set forth. 7th. In a railway-brake mechanism, the combination with the air supply of a system of air-brakes, of a device adapted to be supported from a car and provided with means for closing an outlet in the said air-pipe, and a spring-holder connected to said device and adapted to connect therewith one end of a rope or cable, substantially as and for the purpose set forth. 8th. In a railway-brake mechanism, the combination with the air-supply pipe of a system of air-brakes, of a head-piece e', adapted to be connected with said pipe and close an outlet therein, a clamp adapted to be connected to a car, a bar having one end pivotally connected with said clamp and its other end connected with and adjustable toward and from the head e', a spring-arm connected to said head, and a ring or loop extending said arm and the body of the head to enable a rope or cable to be connected thereto, substantially as and for the purpose set forth.

No. 54,887. Flour Bin. (*Huche à fleur.*)

Percy Young, London, England, 6th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—As a new article of manufacture, a bin or receptacle for flour consisting of a bin having a rounded circular bottom, an outwardly directed annular projection secured to the top thereof, vertical bands or rims above said projection, an inwardly and downwardly directed flange secured to the top of said rim, a body portion cylindrical in form, an outwardly and upwardly directed flange secured to said body portion and adapted to interlock with the said inwardly and downwardly curved flange and an annular bead secured to the upper end of said bottom portion, a cap or cover

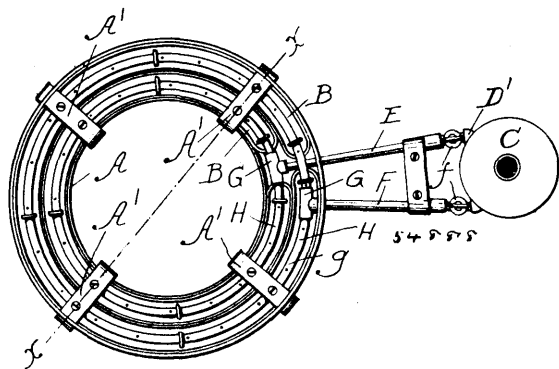
having an annular depending rim on the lower side thereof adapted to be inserted in the top of said body portion, an annular outwardly



directed flange secured to said rim and an inwardly curved flange formed on said cap or cover, and an annular band or support adapted to enclose the said body portion and supporting said outwardly directed annular projection, all of said parts being combined substantially as and for the purpose described.

No. 54,888. Tire Heater.

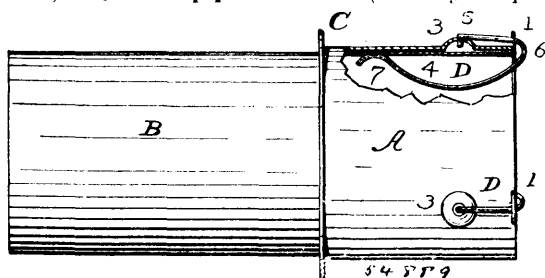
(Appareil pour chauffer les bandages.)



Fred Ringst Meyer, Malcolm, Nebraska, U.S.A., 6th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. A tire-heater, comprising an annular receptacle, troughs therein, pipes located in said troughs and perforated upon their upper faces, a tank, pipes affording communication between the same and the pipes of the troughs, legs supporting said receptacle and holding the troughs and pipes, and valves controlling the passage of the oil through such pieces, said legs being directly connected to said pipes, substantially as and for the purposes specified. 2nd. A tire-heater, comprising an annular receptacle, troughs therein and pipes in said troughs, communicating with the source of supply and legs for supporting said receptacle, serving also to retain the pipes in the troughs, said legs being directly connected to said pipes, substantially as and for the purposes specified. 3rd. A tire-heater, comprising an annular receptacle, troughs therein and pipes in said troughs communicating with the source of supply and legs, for supporting said receptacle, serving also to retain the pipes in the troughs, and a cover, having an inner and outer annular depending flange, said legs being directly connected to said pipes, substantially as and for the purposes specified.

No. 54,889. Stovepipe Thimble. (Dé de tuyau de poêle.)

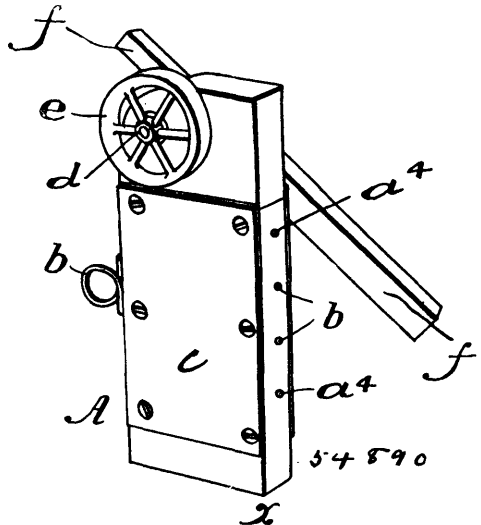


Andrew M. Schime and John C. Schwanengel, both of Dayton, Ohio, U.S.A., 6th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. The flanged stovepipe-thimble provided with raised portions and corresponding ears, the binding-wire secured to said

raised portions and ears, and adapted to arrest and bind an inserted stovepipe, substantially as described. 2nd. The binding-wire comprising the outer end bent at a right angle, the reverse bend and curved inner end adapted to press against the inner surface, in combination with the pipe provided with a raised portion and ear to hold the outer end of said binding-wire, substantially as shown and described.

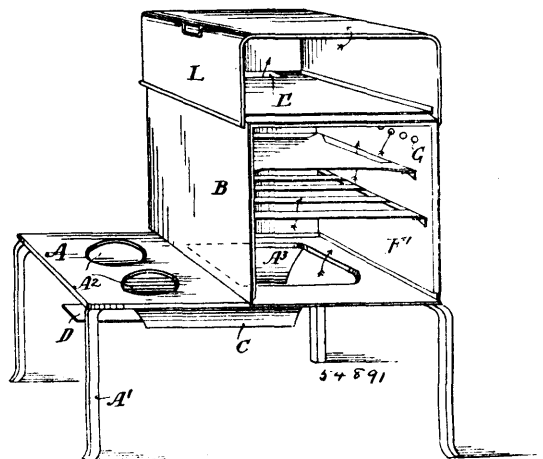
No. 54,890. Lifting Jack. (Cric.)



Wesley C. Crawford, Kent, Indiana, U.S.A., 6th February, 1897; 6 years. (Filed 14th January, 1897.)

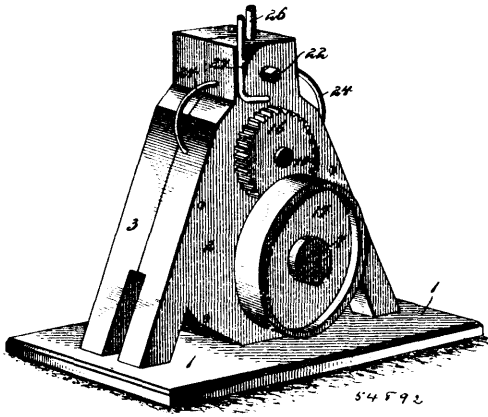
Claim.—1st. A lifting-jack comprising a standard, a wheel mounted at one side of the upper end thereof and projecting beyond said end, and a lever the lifting end of which projects beyond the periphery of the wheel. 2nd. A lifting-jack comprising a standard vertically adjustable and having a rounded upper corner, a wheel mounted on the standard and projecting beyond upper said corner, and a lever pivoted on the opposite side, eccentric of the centre of said wheel, and having its lifting end projecting beyond the periphery of the wheel. 3rd. A lifting-jack comprising a vertically-adjustable standard having a broad base and a curved upper corner, a wheel mounted on a pin and projecting beyond said curved corner, and an operating lever having a slot through which a pin passes, said pin being not in line with the centre of the wheel, the lifting end of the lever projecting beyond the periphery of the wheel.

No. 54,891. Oven. (Fourneau.)



John Stoup Chambers and James Gillman Seymour, both of Melbourne, Victoria, Australia, 6th February, 1897; 6 years. (Filed 14th January, 1897.)

Claim.—1st. In combination, a stand plate as A having openings as A², A³, a chamber, as C and oven as B, substantially as and for the purposes set forth. 2nd. In combination an oven as B whose sides, top and back are jacketed, the inner shells of which have perforations as G, G¹ and the outer shell as J, chimney as K, a stand plate as A and chamber as C mounted upon legs as A¹, substantially as and for the purposes set forth.

No. 54,892. Rotary Engine. (Machine rotatoire.)

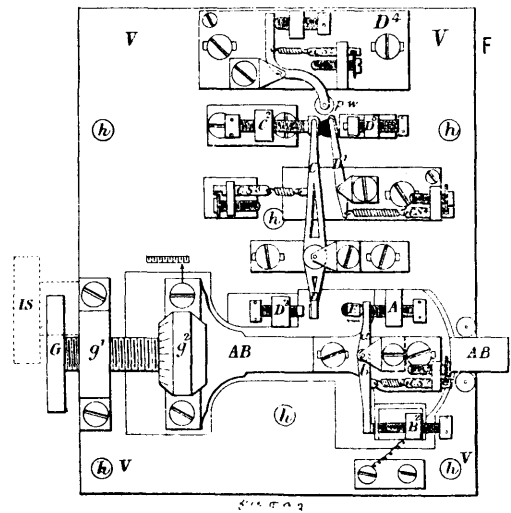
James A. Goodner, James M. Chrithon and Charles Taylor, all of Mosca, Colorado, U.S.A., 6th February, 1897; 6 years. (Filed 15th January, 1897.)

Claim.—1st. In a rotary engine, the combination of a casing having a steam chest, a compartment and chamber, and having supply and exhaust passages between the steam chest and the compartment and chamber, a valve located in the steam chest and provided with a cavity to establish communication between the exhaust passages of the compartment and chamber, a piston operating in the chamber, and a rotating valve or abutment fitted in the compartment and provided with a pocket to establish communication between the supply pipe and chamber during a portion of its revolution, and adapted to communicate with the exhaust passage during a portion of the same revolution and at a time when the supply of live steam to the chamber is cut off, whereby the live steam confined in the said pocket expands and assists materially in driving the piston, substantially as set forth. 2nd. In a rotary engine, the combination of a piston, and a rotary valve or abutment having a pocket, which latter during a portion of the revolution of the said valve establishes communication between the steam supply and the chamber in which operates the piston, and which pocket during a portion of the same revolution of the valve communicates with a by-pass leading into the aforesaid chamber, whereby the live steam contained in the said pocket serves to drive the engine by its expansive force, substantially as set forth. 3rd. In a rotary engine, the combination of a casing having a compartment and chamber in which operate respectively a rotating valve or abutment and a piston, the rotating valve having a pocket, and a valve operating in a steam chest for stopping, starting and reversing the engine, the latter valve being provided with a middle and side cavities, the middle cavity establishing communication between the exhaust passage and the exhaust pipe, and a side cavity establishing communication between an exhaust passage of the said chamber and a similar passage of the compartment, whereby the live steam confined in the pocket of the rotating valve can escape to the aforesaid chamber to assist in driving the piston by expansive force, substantially as described. 4th. In a rotary engine, the combination of a casing provided with a steam chest, a compartment and a chamber, the compartment and chamber intersecting, supply and exhaust passages between the steam chest, compartment and chamber, a rotating valve operating in the compartment and having a pocket, a piston operating in the said chamber, and a valve located in the steam chest for starting, stopping and reversing the engine, and provided with a middle and side cavities with the middle cavity and with the exhaust passages, substantially as shown and described. 5th. In a rotary engine, the combination of a casing having a circular compartment and an annular chamber intersecting and provided with a space midway the sides of the annular chamber, a rotating valve or abutment located in the compartment and having a pocket in its periphery, a revoluble disc operating in the said space and bearing a piston to travel in the annular chamber and sweep through the pocket of the rotating valve, and spring-actuated abutments located in recesses upon opposite sides of the aforesaid space and revoluble disc and adapted to bear against the peripheral surface of the rotating valve, the combined length of the spring-actuated abutments and the thickness of the revoluble disc equalling the thickness of the said rotating valve, substantially as shown for the purpose described. 6th. A rotary engine embodying in its organization similar parts or halves having recesses formed in their meeting faces which when the parts are united provide a steam chest, a compartment, an annular chamber, and exhaust passages, the latter establishing communication between the steam chest and annular chamber and between the steam chest and compartment, a revoluble disc bearing a piston, which latter is adapted to travel in the said chamber, a rotating valve or abutment operating in the compartment and provided with a pocket through which is adapted to sweep the piston, and which pocket is adapted to communicate with the exhaust passage between the compartment and steam chest

and to establish communication between a supply pipe and the aforesaid chamber, packing strips and abutments to bear against the periphery of the rotating valve or abutment to secure a steam-tight joint, supply pipes between the steam chest and compartment, means for causing the rotating valve and revoluble disc to operate in unison, and a valve located in the steam chest for starting, stopping and reversing the engine, and provided with a middle and side cavities, the middle cavity establishing communication between an exhaust passage and the exhaust pipe, and an end cavity adapted to connect the other exhaust passage and the exhaust passage between the compartment and steam chest, substantially in the manner and for the purpose set forth.

No. 54,893. Cable Telegraphic Transmission.

(Transmission de câble télégraphique.)

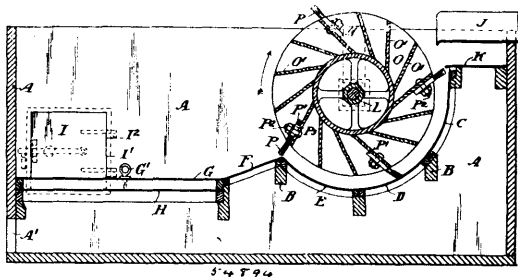


Charles Langdon Davies, 45 Redcliffe Square, Kensington, Middlesex, England, 6th February, 1897; 6 years. (Filed 2nd July, 1896.)

Claim.—1st. In telegraphic transmission on cable lines, the use, substantially as described, of an electro-motive source capable of giving a relatively strong current, together with apparatus which disconnects the source, after a predetermined interval and long before the current attains the full strength which the source is capable of yielding. 2nd. In telegraphic transmission on cable lines, the use of a powerful electro-motive source, and apparatus which disconnects the source before the current attains the full strength, in combination with an appliance which forwards a counter current of suitable and adjustable strength and duration after the signal current and thereby accelerates its fall. 3rd. In telegraphic transmission on cable lines, transmitting appliances, substantially as described, whereby on the key being closed an electro-magnet which shunts the key is caused to attract its armature and thereby to move parts which at suitable and adjustable intervals after the closing of the line or signal circuit by the key open the said circuit and then put the line to earth. 4th. In telegraphic transmission on cable lines, transmitting appliances, substantially as described, whereby an electro-magnet is caused to move parts which at suitable and adjustable intervals after the closing of a primary circuit by the key again open the primary circuit and afterwards close the primary coil upon itself, whilst the secondary coil remains throughout connected to the line circuit. 5th. In telegraphic transmission on cable lines, transmitting appliances wherein substantially as described, an electro-magnet brought into action by closing the key in addition to performing the functions stated in claim 4 moves parts which at a suitable and adjustable time, relatively to the time of the other movements close the secondary circuit upon itself. 6th. In telegraphic transmission on cable lines, transmitting appliances wherein substantially as described, an electro-magnet brought into action by closing the key first closes the secondary coil on itself through an adjustable resistance and then opens the circuit of the primary coil, thereby causing an adjustable curbing current to follow the signal current. 7th. In telegraphic transmission on cable lines, transmitting appliances wherein, substantially as described, an electro-magnet, brought into action by the closing of the key, first causes a graduated signal current to pass into the line and then discharges a condenser, whereby a curbing current is made to immediately follow the signal current. 8th. In telegraphic transmission on cable lines, transmitting appliances, substantially as described, whereby an electro-magnet brought into action by the closing of a key closes and opens a primary circuit and also controls a shunt around a secondary coil which with a condenser is in the line circuit; the arrangement being such that the shunt being closed the secondary current resulting from the closing of the primary circuit is diverted from the line, whilst the opening

of the shunt permits the current resulting from the opening of the primary circuit to pass. 9th. Telegraphic transmission apparatus substantially as described and illustrated by the annexed drawings.

No. 54,894. Apparatus for Removing Solids from Liquids. (*Appareil pour enlever les solides des liquides.*)

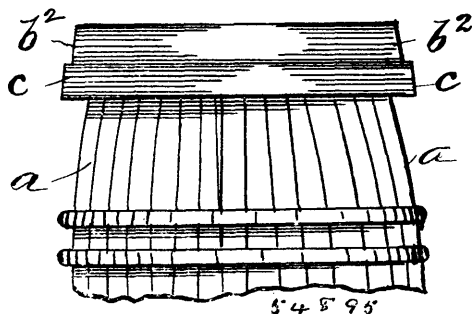


John F. Stephenson, Cranmore Street, Glenferries Hawthorne, Victoria, Australia, 6th February, 1897; 6 years. (Filed 8th September, 1896.)

Claim.—1st. In apparatus for automatically removing solid matter from water or other liquid, in combination a revolving water-wheel as N operated by the liquid requiring cleansing, brushes as P and one or more curved screens as C, D, E, said brushes being so arranged as to cleanse the surface of said screen or screens during their revolution with the said wheel, substantially as and for the purposes set forth. 2nd. In apparatus for automatically removing solid matter from water or other liquid, in combination a water-wheel arranged within a casing as A, a liquid supply shoot as J or K, and brushes as P, said brushes cleansing one or more curved screens as C, D, E, substantially as and for the purposes set forth. 3rd. In apparatus for automatically removing solid matter from water or other liquid, in combination one or more curved screens as C, D, E, inclined screen as F, and screens as G and H, brushes as P, and water-wheel as N, casing as A and an inlet shoot as J and K, substantially as and for the purposes set forth. 4th. In apparatus for automatically removing solid matter from water or other liquid, in combination a water-wheel as N, brushes as P, bolts P² and slots P³ for adjusting the same, the said wheel being supported in bearings as M capable of being raised and lowered, substantially as and for the purposes set forth. 5th. In apparatus for automatically removing solid matter from water or other liquid, the combination of the casing A, a bucket wheel L N O journaled therein, brushes P secured to the blades of some of the buckets, a screen-bottomed race C D E for said wheel curved concentric to said wheel, an inclined continuation F of said screen, a horizontal continuation G of said inclined screen of coarser mesh, a finer screen H under said last named screen, a shoot to lead water to the buckets of said wheel, an outlet at the bottom of the case A, and a side-opening giving access to the screens G and H, substantially as set forth.

No. 54,895. Cement Cask or Barrel.

(*Baril et tonneau à ciment.*)



Thomas C. Hooman, Rochester, Kent, England, 6th February, 1897; 6 years. (Filed 12th October, 1896.)

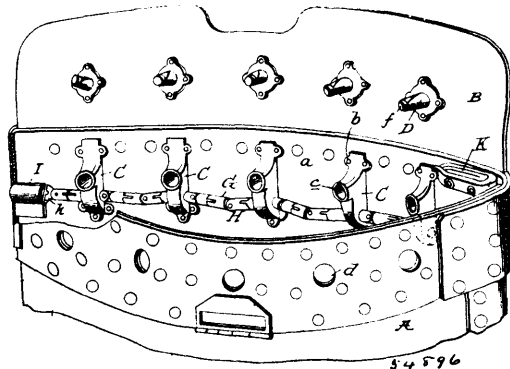
Claim.—In casks or barrels for containing cement or the like, the construction of the head b of a suitable metal having a raised rim b¹ and depending flange b² with space between when used either with or without the hoops or bands c tightly encircling the flanges b² of the head b, all substantially as hereinbefore described and shewn.

No. 54,896. Mail Bag Fastener. (*Attache de sac postal.*)

Miles S. Cody, Stockton, California, U.S.A., 6th February, 1897; 6 years. (Filed 15th December, 1896.)

Claim.—1st. The combination with a mail bag, of a fastener for the mouth thereof comprising female members secured to one wall and male members secured to the opposite wall or flap, pivoted

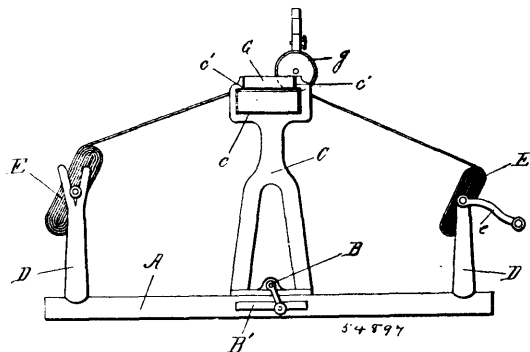
keepers adapted to engage said male members, and a flexible rod, free from threads or gears, and adapted to strike said keepers so as



to disengage the keepers from the male members when turned in its bearings and to allow the keepers to return to their normal position while the rod has been turned in the position which disengaged the keepers and male members, substantially as specified. 2nd. The combination with a mail bag, of a fastener for the mouth thereof comprising female members secured to one wall and male members secured to the opposite wall or flap, pivoted keepers, and a rod composed of a plurality of flexibly connected sections having both endwise and transverse play at the joints and adapted when turned or partially turned in one direction to disengage the keepers from the male sections and allow the keepers to return to their normal positions without further movement of the rod, substantially as specified. 3rd. The combination with the mail bag, of a fastener for the mouth thereof comprising female members secured to one wall and male members secured to the opposite wall or flap, pivoted keepers, and a rotatable or partially rotatable bar or rod for manipulating the keepers, said rod being composed of key sections (su h as F) to engage the keepers, and links (as G) flexibly connected to the key sections, substantially as specified. 4th. The combination with a mail bag, of a fastener for the mouth thereof comprising female members secured to one wall and male members secured to the opposite wall or flap, pivoted keepers adapted to engage the male members, springs backing said keepers, springs contacting with the male members, and a flexible rod adapted to disengage the keepers from the male members, substantially as specified. 5th. The combination with a mail bag having apertures in one wall, and also having a closure flap, of female lock members secured to one of the inner walls of the bag and having projections to enter said apertures, male lock members secured to the closure flap, springs to engage the male members, spring-backed pivoted keepers, and a flexible rod having key sections to engage the keepers, substantially as specified. 6th. A bag fastener having the bar or rod H, journaled in bearings and composed of the key section F, and the links G, said rod having a lock at one end adapted to cooperate with suitable means on the walls of the bag to secure the mouth thereof, substantially as specified.

No. 54,897. Cloth Measuring Machine.

(*Machine à auner les draps.*)



Thomas R. Woodard, Kingsbury, and Alphens J. Esnouf, Richmond, both in Quebec, Canada, 6th February, 1897; 6 years. (Filed 19th November, 1896.)

Claim.—1st. In a cloth measuring machine, the combination, with two longitudinal bars carrying the cloth measuring devices, of a guide secured to one bar and slidable in a hole in the other bar, and a screw for adjusting the distance between the bars, substantially as set forth. 2nd. In a cloth measuring machine, the combination, with two uprights provided with rectangular sockets and jaws above the sockets, of a cross-bar carried by the said sockets and adapted to support the cloth, a bar arranged between the said jaws over the cloth, and an indicator carried by the said bar and provided with

driving wheels bearing on the cloth, substantially as set forth. 3rd. In a cloth measuring machine, the combination, with a bar, driving wheels journaled in bearings on the said bar, and a worm driven by the said wheels, of a casing hinged at one end to one of the said bearings and provided with a lateral sight opening, and a worm wheel mounted on a shaft journaled in the said casing and normally engaging with the said worm, substantially as set forth.

No. 54,898. Recoil Operated Firearms.

(*Fusil actionné par le recul.*)



The San Francisco Arms Co., assignee of Howard Carr, all of San Francisco, California, U.S.A., 6th February, 1897; 6 years. (Filed 29th November, 1895.)

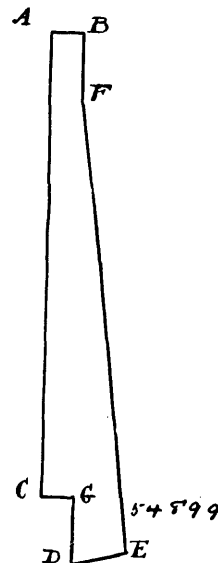
Claim.—1st. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt and barrel to normal position, and a locking device for holding the links in position to lock the breech-bolt to the barrel at the commencement of the recoil, substantially as described. 2nd. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, mechanism for breaking the links downward to withdraw the breech-bolt and open the breech and for returning the breech-bolt and barrel to normal position, and a locking device for holding the links to lock the breech-bolt to the barrel at the commencement of the recoil, substantially as described. 3rd. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for actuating the links to withdraw the breech-bolt and open the breech, and a spring for returning the breech-bolt to normal position connected to operate upon one of the links between the points of connection of the links to the breech-bolt and barrel, substantially as described. 4th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for actuating the links to withdraw the breech-bolt and open the breech, and a spring for returning the breech-bolt having a fixed bearing at one end and the other end connected to operate upon the rear link at one side of its barrel pivot, substantially as described. 5th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, and mechanism for actuating the links after the rearward movement of the barrel is completed to withdraw the breech-bolt and open the breech, and for returning the breech-bolt to normal position, substantially as described. 6th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, and mechanism for actuating the links during the return movement of the barrel to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, substantially as described. 7th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, mechanism for breaking the links downward during the return movement of the barrel to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, substantially as described. 8th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, devices for holding one of the links during the return movement of the barrel, whereby said link is actuated as a lever by the returning barrel to withdraw the breech-bolt and open the breech, and means for releasing the breech-bolt and returning it to normal position, substantially as described. 9th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, a catch and connections between said catch and one of the links whereby said link is actuated as a lever by the returning barrel to withdraw the breech-bolt and open the breech, and means for tripping said catch and for returning the breech-bolt to normal position, substantially as described. 10th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, said links being locked in their normal position during recoil and unlocked for the return movement of the barrel, means for returning the barrel to position after recoil, and mechanism for actuating said links during the return movement of the barrel to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, substantially as described. 11th. A gun or other firearm having a longitudinally movable barrel actuated by the recoil, a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after re-

coil, mechanism for actuating the links during the return movement of the barrel to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, and a hand lever for operating the breech mechanism, substantially as described. 12th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel and breech-bolt to normal position, a catch and connections between said catch and the rear link between its points of connection to the other link and the barrel for holding said link by the catch, whereby the rear link is actuated as a lever during the return movement of the barrel to withdraw the breech-bolt, and means for tripping said catch for the return of the breech-bolt, substantially as described. 13th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel and breech-bolt to position, a member carried by and pivoted on the rear link, and means for holding said member during the return of the barrel whereby said link is actuated as a lever to withdraw the breech-bolt and open the breech, substantially as described. 14th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel and breech-bolt to position, a member carried by and pivoted on the rear link, a catch holding said member during the return of the barrel, and means for tripping said catch for the return of the breech-bolt, substantially as described. 15th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel and breech-bolt to position, a member carried by and pivoted on the rear link, and a catch holding said member during the return of the barrel and tripped by the returning barrel as the latter reaches its normal position, substantially as described. 16th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, a pressure bar pivoted on the rear link, means for holding said pressure bar during the return of the barrel whereby the link is actuated as a lever to withdraw the breech-bolt and open the breech, and a spring acting upon said bar to return the breech-bolt, substantially as described. 17th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, and a carrier carried by the forward link, substantially as described. 18th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, and a carrier carried by the forward link and having a pivoted member actuated by the closing of the links together to carry the cartridge into line with the breech-bolt, substantially as described. 19th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, a carrier carried by the forward link and consisting of two side wings engaging the head of the cartridge, and a central lever actuated by the closing of the links together, substantially as described. 20th. The combination with a longitudinally movable barrel, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position, mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, a carrier carried by the forward link and consisting of two side wings engaging the head of the cartridge, and a central lever actuated by the closing of the links together, substantially as described. 21st. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, a spring arranged under the barrel put under tension by the recoil of the barrel and reacting to return the barrel to normal position, and mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, substantially as described. 22nd. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, a magazine arranged below the barrel, a spring coiled about the magazine put under tension by the recoil of the barrel and reacting to return the barrel to normal position, and mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, substantially as described. 23rd. A gun or other firearm having a longitudinally movable barrel actuated by the recoil, a breech-bolt, links connecting said breech-bolt and barrel, a magazine arranged below the barrel, a spring coiled about the magazine between a lug on the barrel at the forward end of the spring and a sleeve at the rear end, a lug on the barrel rearward of the sleeve, a hand lever and connections to said sleeve for drawing back the barrel by hand, and mechanism for actuating the links to withdraw the breech-bolt and open the breech and for returning the breech-bolt to normal position, substantially as described. 24th. The combination with a

longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, a spring arranged under the barrel put under tension by the recoil of the barrel and reacting to return the barrel to normal position, mechanism actuated by said spring for actuating the links to withdraw the breech-bolt, and a spring for returning the breech-bolt, substantially as described. 25th. A gun or other firearm having a longitudinally movable barrel actuated by the recoil, a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to position after recoil, mechanism for actuating the links to withdraw the breech-bolt and for returning the breech-bolt to normal position, and a hand lever and connections to the barrel for operating the breech mechanism by hand, substantially as described. 26th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel and normally lying in straightened position with their point of connection beyond the dead centre, mechanism for actuating the links to withdraw the breech-bolt and for returning the breech-bolt and barrel to normal position, and a member engaging one of the links to lock the breech-bolt to the barrel at the commencement of the recoil, substantially as described. 27th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to normal position, mechanism for actuating the links to withdraw the breech-bolt and for returning the breech-bolt to normal position, and a hammer cocked by the recoil and co-acting with said mechanism to lock the links in their normal position at the commencement of the recoil, substantially as described. 28th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to normal position, mechanism for actuating the links to withdraw the breech-bolt and for returning the breech-bolt to normal position, a hammer cocked by the recoil, and a projection on the hammer co-acting with said mechanism to lock the links in their normal position and to lock the cocked hammer on the return of the links until they are fully returned to normal position, substantially as described. 29th. The combination with a longitudinally movable barrel actuated by the recoil, of a breech-bolt, links connecting said breech-bolt and barrel, means for returning the barrel to normal position, mechanism for actuating the links to withdraw the breech-bolt and for returning the breech-bolt to normal position, a hammer cocked by the recoil, and a projection on the hammer co-acting with said mechanism on the return of the breech bolt to lock the cocked hammer until the links are fully returned to normal position, substantially as described. 30th. The combination with barrel A and breech bolt C, of links *a*, *b*, bar 20 pivoted to link *b*, a spring for returning the barrel, a stop 24 carried by said bar, spring-pressed lever 25 having catch 1 engaging said stop, a spring pressing on bar 20, and means for tripping catch 1, substantially as described. 31st. The combination with barrel A and breech-bolt C, of links *a*, *b*, bar 20 pivoted to link *b*, a spring for returning the barrel, stop 24 carried by said bar, spring pressed lever 25 having catch 1 engaging said stop, and shoulder 2 on the lever, a spring pressing on bar 20, and shoulder 2^a on the barrel engaging the shoulder 2 on the return of the barrel to trip the catch, substantially as described. 32nd. The combination with barrel A and breech bolt C, of links *a*, *b*, bar 20 pivoted to link *b*, a spring for returning the barrel, hammer H having projection 49 co-acting with said bar to lock the links, stop 24 carried by said bar, spring pressed lever 25 having catch 1 engaging said stop, a spring pressing on bar 20, and means for tripping catch 1, substantially as described. 33rd. The combination with barrel A and breech bolt C, of links *a*, *b*, bar 20 pivoted to link *b*, spring K below the barrel for returning the latter, stop 24 carried by said bar, spring pressed lever 25 having catch 1 engaging said stop, a spring pressing on bar 20, and means for tripping catch 1, substantially as described. 34th. The combination with barrel A, breech bolt C and links *a*, *b*, of spring K below the barrel acting on lug 38 on the barrel, and mechanism for actuating the links, substantially as described. 35th. The combination with barrel A, breech-bolt C and links *a*, *b*, of spring K below the barrel between lug 38 on the barrel at the forward end of the spring and sleeve 37 at the rear end, lug 38 on the barrel behind said sleeve, hand lever F and connections between said hand lever and sleeve 37, and mechanism for actuating said links by the recoil, substantially as described. 36th. The combination with the barrel, breech bolt and links *a*, *b*, of carrier E on link *a* consisting of side wings *c* and central lever *f*, pin 32 on said lever entering an opening in link *a*, and pin 33 on link *b* engaging pin 32 to actuate the lever when the links are closed together, substantially as described. 37th. The combination with a longitudinally moving breech bolt and carrier moving therewith having side wings *e*, of inclined surfaces *g* by which the wings are pressed together as the carrier moves rearward, substantially as described. 38th. The combination with the barrel and breech-bolt, and links *a*, *b* connecting the breech-bolt and barrel, of carrier E on link *a* having side wings *e*, and inclined surfaces *g* by which the wings are pressed together as the carrier moves rearward, substantially as described. 39th. Carrier E having side wings *e* for engaging the sides of the cartridge and central hooked lever *f*, for engaging the under side of the head of the cartridge, substantially as described. 40th. The combination with a barrel, breech-bolt and carrier, and means for opening the breech and actuating the carrier, of stop *c* in the breech-bolt for the head of the cartridge and means for advancing the stop

into the path of the cartridge as the latter is advanced by the carrier and retracting the stop as the breech-bolt returns to position, substantially as described. 41st. The combination with a barrel, breech-bolt and carrier, and means for opening the breech and actuating the carrier, of spring-returned stop *c* in the breech-bolt for the head of the cartridge, and means for advancing the stop, substantially as described. 42nd. The combination with a barrel, breech-bolt and carrier, and means for opening the breech and actuating the carrier, of stop *c* in the breech-bolt for the head of the cartridge, and means for advancing said stop under a yielding pressure and returning it to position, substantially as described. 43rd. Breech-bolt C having a longitudinal recess, stop *c* carried by rod 28 in said recess and having actuating lug 5, and spring 29 for returning the stop, substantially as described. 44th. Breech-bolt C having a longitudinal recess, stop *c* carried by rod 28 in said recess and having actuating lug 5 loose on the rod and acting against spring 30, and spring 29 for returning the stop, substantially as described. 45th. Breech-bolt C having a longitudinal recess, stop *c* carried by a rod 28 in said recess and having actuating lug 5, spring 29 for returning the stop, and firing pin G closing the recess, substantially as described. 46th. The combination with a hammer and recoil-operated cocking mechanism, of sear *h* having tail-piece 47, trigger *i* carrying spring-pressed pivoted catch 48, and pin 6 on the catch entering a slot in the trigger, the line of said slot being such relatively to the lines of movement of the sear and trigger that the pin is thrown to its upper end when the trigger is actuated to release the sear and returned by the sear as the hammer is cocked, substantially as described. 47th. The combination with the barrel A, of breech piece A¹ mortised through at the rear end, a breech-bolt moving in said mortise, and a removable plug closing the rear end of the mortise, substantially as described. 48th. The combination with the barrel A, of breech piece A¹ mortised through at the rear end, breech-bolt C moving in said mortise, links *a*, *b*, and removable plug 34 closing at the rear end of the mortise, substantially as described. 49th. The combination with the breech-bolt C, and links *a*, *b*, of firing pin G lying outside the links and curved about the forward end of link *a*, substantially as described.

No. 54,809. Clapboard. (Planche à lambrisser.)



Wendell P. Jones, Woodstock, New Brunswick, Canada, 6th February, 1897; 6 years. (Filed 18th September, 1896.)

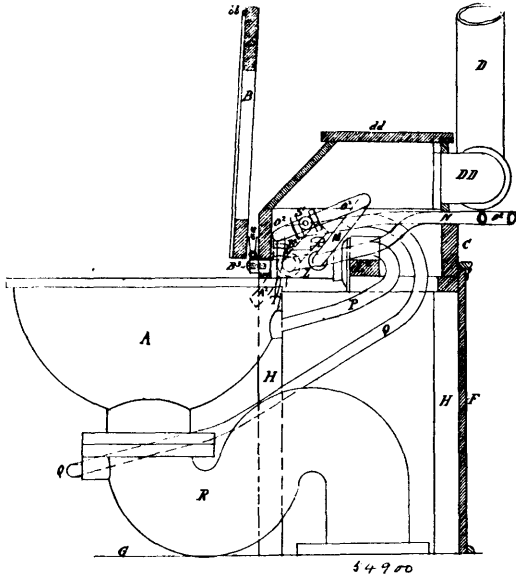
Claim.—The clapboard which has a tongue on one edge and a rabbit on the other edge, and which, when laid on the wall, exactly resembles the clapboard in common use, substantially as and for the purpose hereinbefore set forth.

No. 54,900. Water-Closet. (Latrine à eau.)

Philip Nicolle, Toronto, Ontario, Canada, 6th February, 1897; 6 years. (Filed 27th October, 1896.)

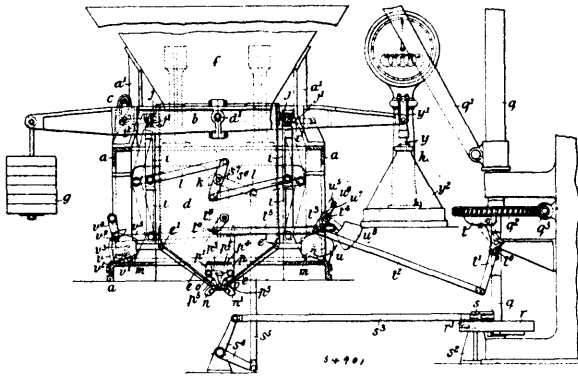
Claim.—1st. A closet seat, comprising the seat B, and its hinges *aa*, the strip of india-rubber or felt *bb* at its underside and the metal piece Z, of india-rubber or felt *c* at its back edge, and the metal piece Z¹, the air box C and its loose cover *dd*, the flushing valve L, its rod Y, its screw B³ and waste water branch T, and the strip of wood L², the three way branch junctions M, the cold water supply pipe N, the hot water supply pipe O² and its tap S, the flushing pipe P and closet bowl A, the flushing pipe Q and trap R, all arranged and combined substantially as and for the purpose hereinbefore set forth. 2nd. A closet seat, comprising the closet bowl A, the flushing valve L, the three way branch junctions M, the hot water supply pipe O² and its tap S, the hot water branch A² and its tap B², all arranged

and combined substantially as and for the purpose hereinbefore set forth. 3rd. A closet seat, comprising the seat B, its hinges *a a*,



and the front of air box C, the india-rubber or felt *b b* and the rim of closet bowl A, the india-rubber or felt *c c* and the front of said air box, its loose cover *d d*, the panelled frame F, its rail FF, and the air from closet room floor G, the down draught air duct E its upper elbow through base of floor above, its lower elbow EE underneath said floor and frame, and the down draft air, the vent pipe D and its elbow DD, all arranged and combined substantially as and for the purpose hereinbefore set forth. 4th. A closet seat, comprising the chair V and its curtain, the rear leg, its hinges *e e*, and front corner support H of panelled frame F, the two front legs, its rollers, the false leg W and the closet floor G, the chair seat V and closet bowl lid and the chair back and closet seat hole, and the chain supporting chair seat, all arranged and combined substantially as and for the purpose hereinbefore set forth.

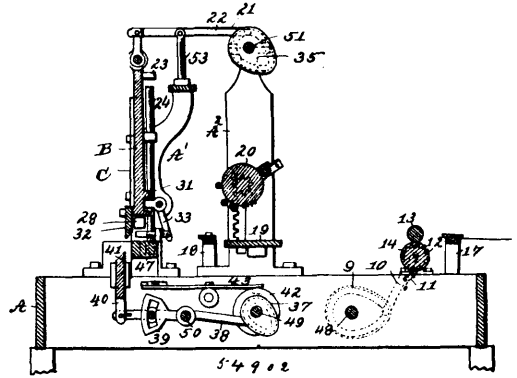
No. 54,901. Weighing and Recording Machine.
(*Machine à peser et enregistrer.*)



Charles Ingrej, London, England, 6th February, 1897; 6 years. (Filed 19th December, 1896.)

Claim.—1st. In a weighing apparatus the combination with the weighing receptacle of toggle frames adapted to support the weight of the said receptacle whilst being charged and then to lower the same to allow the weighing operation to take place, substantially as described. 2nd. In a weighing apparatus having a receptacle adapted to be supported by toggle frames independently of the weigh beam and in combination with which a crane is employed for delivering loads into the said receptacle, mechanism for causing the turning movements of the crane to operate the toggle frames, substantially as described. 3rd. In weighing apparatus wherein the weighing receptacle is adapted to be supported by toggle frames as described and wherein the said receptacle is provided with doors for discharging the contents of the receptacle when weighed, the mechanism for retaining the doors closed and for releasing them by the movement of a crane, substantially as described. 4th. In weighing apparatus, the combination with the weighing lever, of a pivoted arm designed to be adjusted relatively with the fulcrum of the said lever, substantially as described.

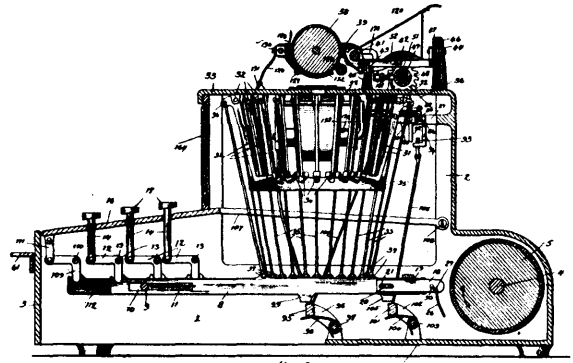
No. 54,902. Tag Machine. (*Machine à étiquette.*)



Simon Daneyger, assignee of Christian J. Weinman and Edward E. Enchenhofer, all of Dayton, Ohio, U.S.A., 8th February, 1897; 6 years. (Filed 10th December, 1896.)

Claim.—1st. In a tag machine, the combination of the cam 35, arm 22, slide B, carrying punches 30, as a means of perforating paper on base 47 having therein punch orifices, the cam 34, arm 21, rod 54 to which arm 23 is attached and at the lower end the former and cutter 28, the square bar 33 with pivotal parts, and arm to engage lugs 31 of the slide to operate the same to form a staple of the wire, the rod 24 with spiral spring 27 to elevate said rod, arms 25 and 26 to bend up one point of the clasp, the wire feed comprising cam 42, arm 43, reciprocating arm 4, and catch 45, the wire guide and cutter plate 34, with suitable mechanism to supply paper to the base 47, substantially as set forth. 2nd. In a tag machine, the combination of the cam 37, arm 38 with slotted end, the pin 39, arms 49 held on said pin, the cutter 41 with its adjacent plate 32, as a means to cut off a portion of paper for a tag, and suitable mechanism to feed said paper alternately from a roll, substantially as set forth. 3rd. In a tag machine, the combination of the cam 35 with its connecting arm 22, the vertical slide B, the cam 34 with its connecting arm 21, the vertical sliding rod 54 to which arm 23 is attached, the former 28, the bar 33 with pivotal parts, the lugs 31 of the former slide, the rod 24 means to elevate the same, and the arms 25 and 26 to bend up the point of the formed staple, substantially as described.

No. 54,903. Typewriting Machine. (*Clavigraphie.*)



Allison Templeton, Galveston, Texas, U.S.A., 8th February, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—1st. In a typewriting machine, a friction drum adapted to be revolved from a suitable source of power, and a series of type-bars under control of a series of keys, and bars adapted to be operated by the friction drum for operating the type-bars, as specified. 2nd. In combination, a series of type-bars, a series of keys for forcing said bars longitudinally, a series of shoes carried by said bars, a revolving friction drum for depressing the bars when forced longitudinally, type-bars connected to the first named bars, and a carriage whose movements are under the control of the keys, substantially as shown and described. 3rd. In a typewriting machine, a series of key-bars, a series of keys adapted to move said bars longitudinally, springs for retracting said bars, shoes carried by the bars, a revolving friction drum for depressing the bars when the shoes come in contact therewith, key-bars connected to the first named bars so as to be operated when the latter are put in motion, in combination with a carriage, a feed screw for operating said carriage, a spring for actuating the carriage in one direction, and means for connecting said carriage with the power for revolving it in the opposite direction, as shown and described. 4th. In a typewriting machine, a series of key-bars adapted to move longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a

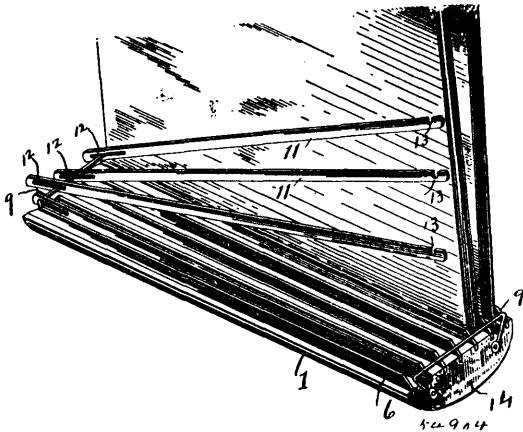
series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, and a suitable carriage whose movements are under control of the keys, substantially as shown and described. 5th. In a typewriting machine, a series of key-bars adapted to move longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a key-board for effecting the spacing between the words, and a suitable carriage whose movements are under control of the keys and key-board, as shown and described. 6th. In a typewriting machine, a series of key-bars adapted to move longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes out of contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a bar 112 similar to the key-bars and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross-bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, and a suitable carriage whose movements are under the control of the cross-bar 95, substantially as shown and described. 7th. In a typewriting machine, a series of key-bars adapted to move longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a bar 112 similar to the key-bars and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross-bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, a escapement connected with the cross-bar, a feed screw which is spring actuated in one direction and whose springs movements are under the control of the escapement, means for revolving the screw against the action of its spring by power outside of the operator, a key lever for controlling this winding, and a suitable carriage whose movements are under the control of the feed screw, substantially as and for the purpose set forth. 8th. In a machine of the character described, a series of key-bars 8 arranged within the base of the machine and adapted to be moved longitudinally, levers 12 adapted to force said bars in one direction, springs for returning said bars to their normal position when released, stems 14 pivoted to the levers and projecting through the key-board, keys carried by said stems, shoes carried by the inner ends of the bars 8, the coil springs carried by each bar so arranged as to hold the shoes in a normally central position but permit their movement longitudinally in either direction relative to the bars when sufficient force is brought to bear thereon, a revolving friction drum, an incline plate 26, and pins projecting from the shoes for engagement with said plate, said plate having slots formed therein by the passage of the shoes, substantially as and for the purpose set forth. 9th. In a machine of the character described, the bars 8 fitted upon the rod 9, shoes 18 carried by said bars, springs 23 and 25 arranged to hold the shoes in a normally central position upon the bars but permit them being forced in either direction relative to the bars, pins carried by the shoes, a plate 26 having slots therein for the passage of the shoes, said slots being enlarged at their lower ends for the passage of the pins, a revolving friction drum for enlarging the shoes when forced inward, a ledge formed upon the plate for preventing the final upward movements of the bars 8 when held inward, levers 12 for forcing the bars 8 in one direction, springs 11 for returning said bars when the pressure thereon is released, and keys 17 connected to the levers 12 by the shanks 14, substantially as and for the purpose set forth. 10th. In a machine of the character described, the bars 8 fitted upon the rod 9, shoes 18 carried by said bars, springs 23 and 25 arranged to hold the shoes in a normally central position upon the bars but permit them being forced in either direction relative to the bars, pins carried by the shoes, a plate 26 having slots therein for the passage of the shoes, said slots

being enlarged at their lower ends for the passage of the pins, a revolving friction drum for engaging the shoes when forced inward, a ledge formed upon the plate for preventing the final upward movement of the bars 8 when held inward, levers 12 for forcing the bars 8 in one direction, springs 11 for returning said bars when the pressure thereon is released, keys 17 connected to the levers 12 by the shanks 14, a bar 112 also fitted upon the rod 9 and carrying a shoe corresponding to the shoe 18, a lever 109 for operating said bar in one direction against the action of its spring, a board 16 connected to the lever 109, said board being so arranged as to be depressed by the proper manipulation of either of the keys, lugs 99 carried by the bars 8 and 112, a cross-bar 95 under control of said bars, and a suitable escapement mechanism operated by the bar 95, substantially as and for the purpose set forth. 11th. In combination with the key mechanism of a typewriting machine of the character described, type-bars actuated by said mechanism, a carriage suitably mounted upon the framework of the machine, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, an escapement for controlling the movement of the ratchet, means under the control of the key mechanism for operating said escapement, and a platen roll carried by the carriage, substantially as and for the purpose set forth. 12th. In combination with the key mechanism of a typewriting machine of the character described, type-bars actuated by said mechanism, a carriage suitably mounted upon the framework of the machine, a feed-screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, an escapement for controlling the movements of the ratchet, means under the control of the key mechanism for operating said escapement, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, and means carried by the frame for revolving the platen roll by the movement of the carriage, substantially as and for the purposes set forth. 13th. In a typewriting machine, a series of key-bars adapted to move longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first-named bars so as to be operated by the latter, a key-board for effecting the spacing between the words, a carriage suitably mounted upon the framework of the machine, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, an escapement for controlling the movements of the ratchet, means under the control of the key mechanism for operating said escapement, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, and means carried by the frame for revolving the platen roll by the movement of the carriage, substantially as and for the purposes set forth. 14th. In a typewriting machine, a series of key-bars adapted to be moved longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first-named bars so as to be operated by the latter, a bar 112 similar to the key-bars and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross-bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, an escapement connected with the cross-bar, a carriage suitably mounted, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, and means carried by the frame for revolving the platen roll by the movement of the carriage, substantially as and for the purposes set forth. 15th. In

combination with a typewriting machine, two spools adapted to carry the inking ribbon, means for revolving said spools, double threaded screws for moving said spools sidewise, sleeves mounted upon said screws, and means for revolving said sleeves, as specified. 16th. In combination with a typewriting machine, an ink ribbon feeding mechanism, comprising two spools for carrying said ribbon, sleeves upon which said spools are mounted, screws upon which the sleeves are mounted, said screws having a right and left cross-thread, pins 135 projecting into engagement with the threads of the screws, ratchets for revolving the sleeves, pawls for operating said ratchets, a rod 140 to which said pawls are pivoted, means carried by the carriage of the machine for actuating said rod, and means connected with the key mechanism for revolving the spools, substantially as and for the purpose set forth. 17th. In combination with a typewriting machine of the character described, an ink ribbon feeding mechanism, comprising two spools, sleeves upon which said spools are mounted, double cross threaded screws upon which said sleeves are mounted, said screws being held stationary, ratchets carried by the sleeves, pawls for actuating said ratchets, a rod 140 for actuating the pawls, means carried by the carriage of the machine for imparting motion in one direction to the rod, a spring for returning said rod to its normal position, ratchet wheels 148 to whose shanks the spools are splined, pawls for actuating the last named ratchets, means for connecting said pawls to the key mechanism, cams 151 for throwing the last named pawls into and out of engagement with their ratchets, arms 152 so disposed relative to the ink ribbon as to be controlled thereby, whereby the cams are operated, a rod 153 connected to said arms so as to cause the latter to move in unison, and means for locking said rod in two positions, substantially as and for the purpose set forth. 18th. In a typewriting machine, a series of key-bars adapted to be moved longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a bar 112 similar to the key-bars and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross-bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, an escapement connected with the cross-bar, a carriage suitably mounted, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feeding screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, means carried by the frame for revolving the platen roll by the movement of the carriage, two spools adapted to carry the inking ribbon, means for revolving said spools, double threaded screws for moving said spools sidewise, sleeves mounted upon said screws, and means for revolving said sleeves, as specified. 19th. In a typewriting machine, a series of key-bars adapted to move longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a bar 112 similar to the key-bars, and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, an escapement connected with the cross bar, a carriage suitably mounted, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, means carried by the frame for revolving the platen roll by the movement of the carriage, an ink ribbon feeding mechanism, comprising two spools for carrying said ribbon, sleeves upon which said spools are mounted, screws upon which said sleeves are mounted, said screws having a right and left cross thread, pins 135 projecting into engagement with the threads of the screws, ratchets for revolving the sleeves, pawls for operating said ratchets, a rod 140 to which said pawls are pivoted, means carried by the carriage of the machine for actuating said rod, and means connected with the key mechanism for revolving the spools, substantially as and for the

purpose set forth. 20th. In a typewriting machine, a series of key-bars adapted to be moved longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a bar 112 similar to the key-bars and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross-bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, an escapement connected with the cross-bar, a carriage suitably mounted, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, means carried by the frame for revolving the platen roll by the movement of the carriage, an ink ribbon feeding mechanism, comprising two spools, sleeves upon which said spools are mounted, double cross threaded screws upon which said sleeves are mounted, said screws being held stationary, ratchets carried by the sleeves, pawls for actuating said ratchets, a rod 140 for actuating the pawls, means carried by the carriage of the machine for imparting motion in one direction to the rod, a spring for returning said rod to its normal position, ratchet wheels 148 to whose shanks the spools are splined, pawls for actuating the last named ratchets, means for connecting said pawls to the key mechanism, cams 151 for throwing the last named pawls into and out of engagement with their ratchets, arms 152 so disposed relative to the ink ribbon as to be controlled thereby, whereby the cams are operated, a rod 135 connected to said arms so as to cause the latter to move in unison, and means for locking said rod in two positions, substantially as and for the purposes set forth. 21st. In combination with the carriage and feed mechanism of a typewriting machine of the character described, a clutch 80 whose rotations are controlled by the escapement mechanism, a lever for controlling the longitudinal movement of said clutch, a bar pivoted to the frame of the machine and adapted to operate said lever, and a hand lever arranged to operate said bar, substantially as and for the purpose set forth. 22nd. In a typewriting machine, a series of key-bars adapted to be moved longitudinally, a series of levers for moving said bars in one direction, a series of springs for returning said bars to their normal position, a series of keys connected with the levers, shoes carried by the inner ends of the bars, a revolving friction drum for depressing said bars when said shoes are forced in contact therewith, means for holding said shoes in contact with the drum until the limit of their downward movement is reached, means for retracting said shoes out of contact with the drum when this limit is reached, type-bars connected to the first named bars so as to be operated by the latter, a bar 112 similar to the key-bars and carrying a shoe for contact with the friction drum, a lever 109 for operating the bar 112, a key-board 16 connected to said lever, said board being so arranged as to be depressed by either of the keys, a cross-bar 95, a series of lugs 99 carried by the key-bars and the bar 112 for depressing said cross-bar, an escapement connected with the cross-bar, a carriage suitably mounted, a feed screw adapted to impart motion to said carriage, a spring for revolving the screw in one direction, a clutch for revolving the screw against the action of its spring, means for throwing said clutch into and out of engagement with said screw, a ratchet journaled concentric with the feed screw, a clutch for connecting said ratchet with the screw whereby the latter may be revolved in one direction while the ratchet remains stationary, a swinging frame pivoted to the carriage, a platen roll journaled within said frame, means carried by the frame for revolving the platen roll by the movement of the carriage, an ink ribbon feeding mechanism comprising two spools, sleeves upon which said spools are mounted, double cross threaded screws upon which said sleeves are mounted, said screws being held stationary, ratchets carried by the sleeves, pawls for actuating said ratchets, a rod 140 for actuating the pawls, means carried by the carriage of the machine for imparting motion in one direction to the rod, a spring for returning said rod to its normal position, ratchet wheels 148 to whose shanks the spools are splined, pawls for actuating the last named ratchets, means for connecting said pawls to the key mechanism, cams 151 for throwing the last named pawls into and out of engagement with their ratchets, arms 152 so disposed relative to the ink ribbon as to be controlled thereby, whereby the cams are operated, a rod 153 connected to said arms so as to cause the latter to move in unison, means for locking said rod in two positions, a clutch 80 whose rotations are controlled by the escapement mechanism, a lever for controlling the longitudinal movement of said clutch, a bar pivoted to the frame of the machine and adapted to operate said lever, and a hand lever arranged to operate said bar, substantially as and for the purpose set forth.

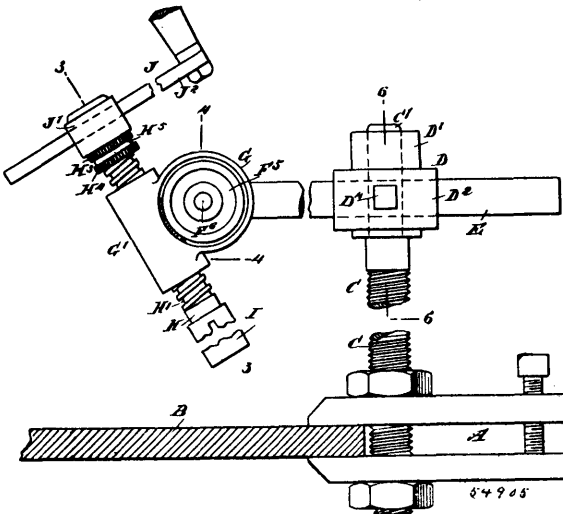
No. 54,904. Temporary Binder. (Lien temporaire.)



Andrew Lewis Weir, Toledo, Ohio, U.S.A., 8th February, 1897; 6 years. (Filed 23rd November, 1896.)

Claim.—1st. In a temporary binder, a back, rigid keepers secured at each end of the same, binding bars having an elongated slot in one end through which one of the keepers passes and a notch at the opposite end to engage the opposite keeper. 2nd. In a temporary binder, a back, rigid keepers secured at each end of the same, binding bars having an elongated slot in one end through which one of the keepers pass, a notch in the opposite end to engage the opposite keepers, the slot in the binding bars being of a length to allow the bars to be moved longitudinally a distance to disengage with the opposite keeper. 3rd. In a temporary binder, a back provided with longitudinal projecting portions forming recesses or jackets, in combination with binding bars located in each jacket, rigid end keepers secured to the back at each end, to one end of which the binding bars are movably secured, the opposite ends having notches to engage the opposite keeper. 4th. In a temporary binder, a back having a corrugated metal plate secured thereon forming spacing recesses for pamphlets and binding bars for holding the pamphlets in the recesses.

No. 54,905. Hand Drill. (Foret à main.)

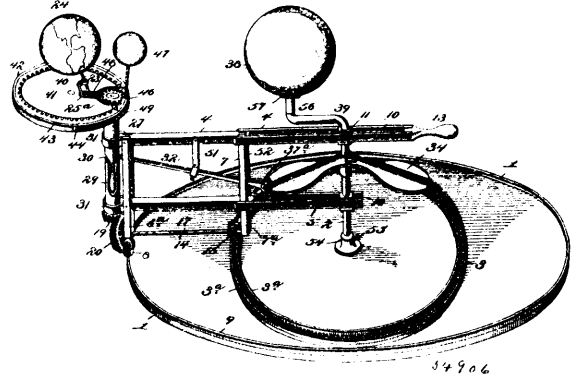


E. D. Jones & Sons Co., assignee of James McSweeney, all of Pittsfield, Massachusetts, U.S.A., 8th February, 1897; 6 years. (Filed 29th November, 1896.)

Claim.—1st. A device of the class described, comprising a casing having a bearing for the drill spindle, a bolt held in the said casing, a worm wheel mounted to turn loosely on said bolt and in mesh with the external thread of said spindle, washers engaging the faces of said worm wheel, and means for pressing said washers in contact with the faces of the worm wheel, substantially as shown and described. 2nd. In a device of the class described, the combination with a casing, and an exteriorly threaded drill spindle mounted in a bearing in the said casing, of a bolt in the casing and having one end projecting therefrom to form a pivot for the casing, a worm wheel mounted loosely on the bolt in the casing and engaging the drill spindle, washers on the bolt on opposite sides of the worm wheel, and a nut on the end of the bolt, substantially as shown and described. 3rd. In a device of the class described, the combination with a supporting rod, of a casing having a bearing at one side, a drill spindle exteriorly threaded and mounted in the bearing of

the casing, a bolt in the casing and serving to secure the casing to said arm, a worm wheel loosely mounted on the bolt and engaging the drill spindle, washers on the bolt on opposite sides of the worm wheel, and a nut on the bolt, substantially as described. 4th. In a device of the class described, the combination with a supporting rod having an apertured end, of a casing having a bearing, a threaded drill spindle mounted on the bearing, a bolt projecting through and secured to the casing to turn therewith, said bolt having screw threaded ends and provided with a collar at about the middle of its length, one end of the bolt projecting through the aperture of the said rod, a worm wheel on the bolt in the casing and meshing with the spindle, washers on the bolt on opposite sides of the worm wheel, and nuts on the ends of the said bolt, substantially as shown and described. 5th. In a device of the class described, the combination with a post, a head adjustable on the said post, and an arm adjustably secured to the said head and having its other end apertured, of a casing provided with a bearing, a threaded drill spindle mounted in the said bearing, a bolt secured to the casing to turn therewith and having one end projecting therefrom to pass through the aperture of the said arm, a worm wheel loosely mounted on the bolt in the casing and meshing with the drill spindle, washers on the bolt on opposite sides of the worm wheel, and nuts on the ends of the bolt, substantially as shown and described.

No. 54,906. Tellurion. (Planétaire.)

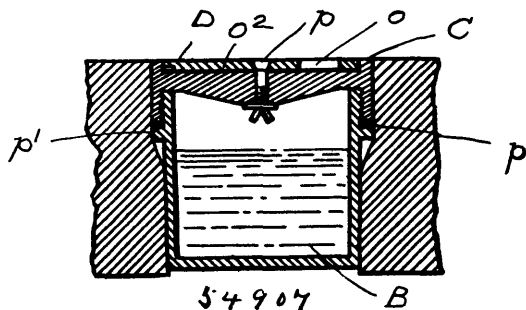


Robert Mowery and Bertha Moscovitz, both of Hot Springs, Arkansas, U.S.A., 8th February, 1897; 6 years. (Filed 7th December, 1896.)

Claim.—1st. In a tellurion, the combination with a fixed sun-globe, of a rotary frame, a bracket swivelled upon the frame, an earth-globe having an inclined axis mounted upon the bracket and adapted to describe an orbit around the sun-globe, a fixed cam-guide, and a lever actuated by the cam-guide and operatively connected with said bracket to impart rotary motion to the bracket in accordance with the movement of the frame around its axis and preserve a uniform direction of inclination of the axis of the earth-globe, substantially as specified. 2nd. In a tellurion, the combination with a fixed sun-globe, of a rotary frame, a bracket swivelled upon the frame, an earth-globe having an inclined axis mounted upon the bracket, a shaft fixed to the bracket and carrying a cam, an operating lever arranged with its outer extremity in operative relation with said cam, and a fixed cam-guide traversed by the inner end of the lever and adapted to impart a rocking movement thereto to cause a rotary movement of said bracket and preserve a uniform direction of inclination of the axis of the earth-globe, substantially as specified. 3rd. In a tellurion, the combination with a fixed sun-globe, of a rotary frame, a vertical shaft carried by the frame, a cylindrical shell carried by the shaft and provided with a cam-groove, an earth-globe having an inclined axis carried by the shaft, a rocking lever arranged at its outer extremity in said cam-groove and mounted to operate in a vertical plane, and a fixed cam-guide arranged in operative relation with and traversed by the inner extremity of the lever, whereby rotary movement is imparted to the shaft to preserve the direction of inclination of the axis of the earth-globe, substantially as specified. 4th. In a tellurion, the combination with a fixed sun-globe, of an elliptical track, a rotary frame arranged in a radial position with relation to the track, mounted at its outer end upon and adapted to traverse the track, and slidably mounted at its inner end at the centre of the space enclosed by the track, a bracket swivelled upon the frame, an earth-globe having an inclined axis mounted upon the bracket, a lever mounted upon the frame and operatively connected at one extremity with said bracket, and a fixed cam-guide traversed by the other extremity of the lever, the periphery of the cam being equidistant at all points from the track when measured upon straight lines radiating from the axis of rotation of the frame, substantially as specified. 5th. In a tellurion, the combination with a fixed sun-globe, of an elliptical track, a central standard, a rotary frame slidably mounted at its inner end upon said standard, and at its outer end upon the track, a rotary bracket mounted upon the frame and carrying an earth-globe having an inclined axis, a lever mounted upon the frame and operatively connected at its outer extremity

with the bracket, and a cam-guide arranged concentric with the track and traversed by the inner extremity of said lever, said guide being double oval in plan and double inclined in longitudinal section, substantially as specified. 6th. In a tellurion, the combination of a base having an elliptical track, a central standard rising from the base and provided with journal portions, a stationary sun-globe, a frame having parallel longitudinal bars mounted for rotation and sliding movement upon the journal portions of the standard and mounted at its outer end upon the track, a bracket mounted for rotation upon the frame and supporting an earth-globe having an inclined axis, a lever mounted upon the frame and operatively connected at its outer extremity with said bracket, and a double inclined cam guide fixed to the standard with its periphery in engagement with a notch in the inner extremity of said lever, said cam-guide being peripherally equidistant from the track and having a central collar fitted upon and adjustably secured to the standard, substantially as specified. 7th. In a tellurion, the combination of a base having an elliptical track, a central standard supporting a sun-globe, a rotary frame slidably mounted at its inner end upon the standard and mounted at its outer end upon said track, a circular track concentric with said standard, an earth-globe mounted for rotation upon the frame and adapted to describe an orbit around the sun-globe, a spindle mounted upon the frame, a pinion feathered upon said spindle and meshing with the teeth of the rack, the rack having guard-webs to maintain the pinion in operative relation therewith, and connections between the spindle and the earth globe, substantially as specified. 8th. In a tellurion, the combination with a sun-globe and a rotary frame, a bracket swivelled upon the frame, an earth-globe having its axis mounted upon the bracket, operating devices for the earth-globe, means for imparting rotary movement to the bracket to maintain the axis of the earth-globe at a uniform inclination, an inclined table supported by said bracket and having an opening through which the axis of the earth-globe extends, whereby the earth-globe is arranged above the plane of the table, said table being provided contiguous to its periphery with an annular seat, a carrier 43 mounted for rotation in said seat independently of the movement of the table and connections between the carrier and the means for operating the earth-globe, and a moon-globe supported by said carrier and adapted to describe an orbit around the earth-globe, substantially as specified.

No. 54,907. Ink-well. (Encrier.)



John Smith Mallory and James Abraham Leonard, both of Youngtown, Ohio, U.S.A., 8th February, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—In an ink-well, the combination of the open-topped neckless bottle B having an integral annular collar a little below the top and two integral downward tapering lugs, said bottle being adapted to enter an opening in a desk top that has a shoulder and recesses to fittingly receive it; the disc-shaped bottle-cover C, thickest at the centre having a central aperture, and having around its periphery a rim projecting above and below the disc, the lower portion being largest and interiorly threaded, and having near its rim the pen-opening *o*, the cheek *c* upon the inner side of the upper portion of said rim; the soft packing *p* between the lower edges of the rim of the cover C and the collar upon the bottle B; the revolving disc cover D, suitable to fill the cup located on the upper surface of the cover C, having a central opening and near the periphery the pen-opening *o*, indented nail-catches, on each side of the cover, said cover having upon its underside, which is lined with rubber or other soft material, at the periphery, the segmental slot or rabbet *s* occupying a space something more than twice the diameter of the pen-opening *o*; and the pivot-pin *p*, its flat head countersunk in the revolving disc D, threaded at its lower extremity for engagement with a nut below the cover C; all substantially as described and for the purpose expressed.

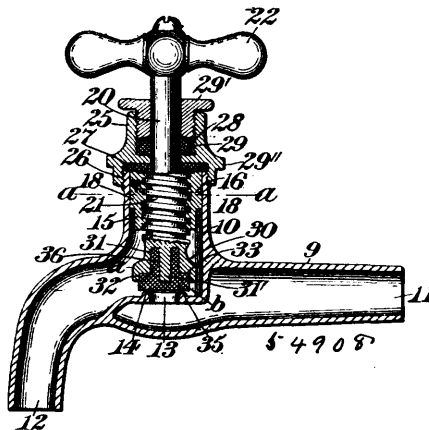
No. 54,908. Compression Faucets and Valves.

(*Fusset et soupape à compression.*)

Albert Sanders Hills, Springfield, Massachusetts, U.S.A., 8th February, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—1st. In a device of the class specified, the combination of a body having a valve-chamber, and also having induction and education passages, and a valve-seat intermediate thereof, a valve in said chamber, consisting of a carrier having a tubular chamber and a

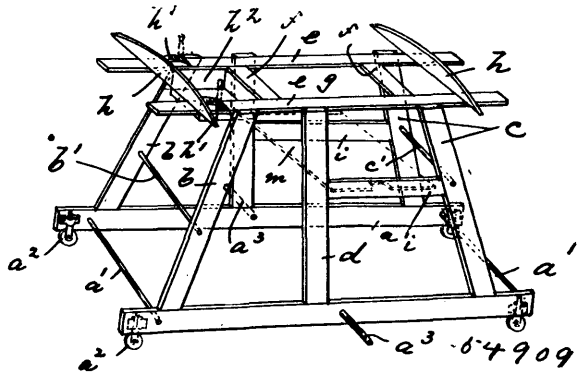
downwardly-extending projection or stem, and a compressible member surrounding said projection and extending into said tubular



chamber, and secured therein by impingement with said projection or stem. 2nd. In a device of the class specified, the combination of a body having a valve-chamber, and also having induction and education passages, and a valve-seat intermediate thereof, a valve in said chamber consisting of a carrier having a tubular chamber, an enlarged chamber adjacent thereto and concentric therewith, and a downwardly-extending projection or stem disposed centrally in said chambers, and a compressible member having a disc fitting within said enlarged chamber, and a tubular stem fitting within the tubular chamber of the carrier and adapted to receive the projection or stem of said carrier. 3rd. In a device of the class specified, the combination of a body having a valve-chamber, and also having induction and education passages, and a valve-seat intermediate thereof, a valve in said chamber consisting of a carrier having a tubular chamber, an enlarged chamber adjacent thereto and concentric therewith, and a downwardly-extending projection or stem disposed centrally in said chambers, a compressible member having a disc fitting within said enlarged chamber, and a tubular stem fitting within the tubular chamber of the carrier and adapted to receive the projection or stem of said carrier, and a valve-actuating member or spindle for operating said valve. 4th. In a device of the class specified, the combination of a body having a valve-chamber, and also having induction and education passages, and a valve-seat intermediate thereof, a valve in said chamber consisting of a carrier having a tubular chamber, and an enlarged chamber concentric therewith, the juncture-wall of said chambers forming a shoulder, and a downwardly-extending projection or stem disposed centrally in said chambers, and a compressible member comprising a disc fitting within said enlarged chamber and engaging the shoulder thereof, and a tubular stem fitting within the tubular chamber, and having its bore extending within the disc, and adapted to receive the downwardly-extending projection or stem of said carrier, whereby when said compressible member is compressed by engagement with the valve-seat, the material thereof will be caused to spread laterally, both inwardly and outwardly, and impinge against the projection or stem of said carrier. 5th. A valve consisting of a carrier having a tubular chamber, an enlarged chamber adjacent thereto and concentric therewith, a downwardly-extending projection or stem disposed in said chambers, and a compressible member having a disc fitting within said enlarged chamber, and a tubular stem fitting within the tubular chamber of the carrier, and adapted to receive the projection or stem of said carrier. 6th. In a faucet or cock, the combination of a body having a valve-chamber, and also having induction and education passages, and having a valve-seat intermediate thereof; a non-rotatable, bored and interiorly-threaded member removably disposed in said valve-chamber, a valve having a threaded-spindle engaging the threads of the non-rotatable member, said valve comprising a carrier integral with said spindle and having a tubular chamber, an enlarged chamber adjacent thereto and concentric therewith, and a downwardly-extending projection or stem disposed centrally in said chambers, and a compressible member comprising a disc fitting within said enlarged chamber, and a tubular stem fitting within the tubular chamber of the carrier, and adapted to receive the projection or stem of said carrier. 7th. In a faucet or cock, the combination of a body having a valve-chamber open at its upper end, and also having induction and education passages, and having a valve-seat intermediate thereof; a non-rotatable, bored and interiorly-threaded member removably disposed in said valve-chamber, a valve having a threaded-spindle engaging the threads of the non-rotatable member, said valve comprising a carrier integral with said spindle and having a tubular chamber, an enlarged chamber adjacent thereto and concentric therewith, and a downwardly-extending projection or stem disposed centrally in said chambers, a compressible member comprising a disc fitting within said enlarged chamber, and a tubular stem fitting within the tubular chamber of the carrier, and adapted to receive the projection or stem of said carrier, and a removable closure or cap closing the open end of said valve-chamber, and having a stuffing-box surrounding said spindle. 8th. A valve-

disc consisting of a disc and a round stem extending upwardly therefrom. 9th. A valve-disc consisting of a disc and a tubular stem extending upwardly therefrom, and having its bore extending into said stem. 10th. A valve consisting of a carrier having a relatively small chamber, an enlarged chamber adjacent thereto and concentric therewith, and a compressible member having a part thereof fitting with said enlarged chamber, and a part thereof fitting within the relatively small chamber. 11th. A valve consisting of a carrier having a tubular chamber, an enlarged circular chamber adjacent thereto and concentric therewith, and a compressible member having a disc fitting within said enlarged chamber and a tubular stem fitting within the tubular chamber of the carrier. 12th. A valve consisting of a carrier having a relatively small chamber, an enlarged chamber adjacent thereto, a downwardly-extending projection or stem disposed in said chamber, and a compressible member having a part thereof fitting within said enlarged chamber, and a part thereof fitting within the relatively small chamber of the carrier and having a bore adapted to receive the projection or stem of said carrier.

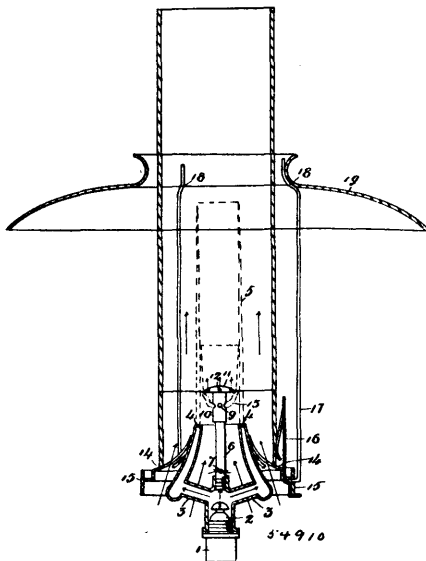
No. 54,909. Baby Walker. (*Chariot d'enfant.*)



Joseph Henry Thomas, Paterson, New Jersey, U.S.A., 8th February, 1897; 6 years. (Filed 10th December, 1896.)

Claim.—1st. In a baby walker, a frame comprising upright standards, pairs of parallel bars *a*, *c*, and cross-bars *a*¹, *b*¹, and *c*¹ joining said standards, transverse braces *f* secured to two of said parallel bars and forming therewith a space *g*, a seat adapted to be supported by various parts of the frame, and segmental pieces or rockers transversely secured to the frame, substantially as described. 2nd. In a baby walker, a frame comprising upright standards, parallel bars *a*, and shorter parallel bars *c*, joining the ends of said standards, cross-bars *a*¹, *b*¹, and *c*¹ also joining said standards, transverse braces *f* secured to the shorter parallel bars *c*, and forming therewith a space *g*, parallel supports *i* connecting pairs of said upright standards, a removable seat mounted on said supports beneath the space *g*, and segmental-shaped pieces or rockers secured to the shorter pair of said parallel bars, substantially as described.

No. 54,910. Gas Burner. (*Bec à gaz.*)



John Friedlander, St. Louis, Missouri, U.S.A., 8th February, 1897; 6 years. (Filed 14th December, 1896.)

Claim.—1st. In a gas burner, a suitable burner adapted to produce a tubular incandescent flame, a disc centrally located within

the tubular flame, a suitable distance above the burner openings forming the tubular flame, and means for supporting the disc in a central position within the tubular flame, substantially as set forth. 2nd. In a gas burner, a suitable burner adapted to be secured to a gas pipe and adapted to produce a tubular incandescent flame, means carried by the burner for feeding a second jet to the interior of the tubular flame, and a deflector for distributing said second jet in proximity to the inner peripheral surface of the incandescent flame, substantially as set forth. 3rd. In a gas burner, a suitable base adapted to be secured to a gas pipe, a supply tip carried by the base, a gas burner mounted over the tip and adapted to produce a tubular incandescent flame, a Bunsen burner or tube carried by the burner and adapted to conduct a blue flame against the inner surface of the incandescent flame, substantially as set forth.

No. 54,911. Cigar Tip Protector.

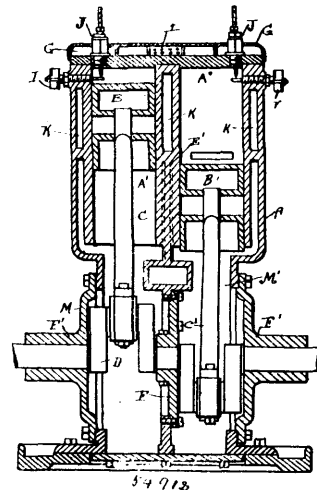
(*Protecteur de bout de cigares.*)



Frederick Edward Heinig and Curran Pope, both of Louisville, Kentucky, U.S.A., 8th February, 1897; 6 years. (Filed 15th December, 1896.)

Claim.—1st. The combination with a cigar, of a tip cup or protector applied to the small end thereof, said tip cup or protector having points extending into the body of the cigar between the larger end and the point of the tip cup and serving by the removal of said cup to break the tip from the cigar, substantially as described and for the purpose set forth. 2nd. The combination with a cigar, of a tip cup or protector consisting of a metallic blank bent into a nearly conical cup, and having points struck from its body between the ends thereof, and penetrating the substance of the cigar near the tip, substantially as described and for the purpose set forth.

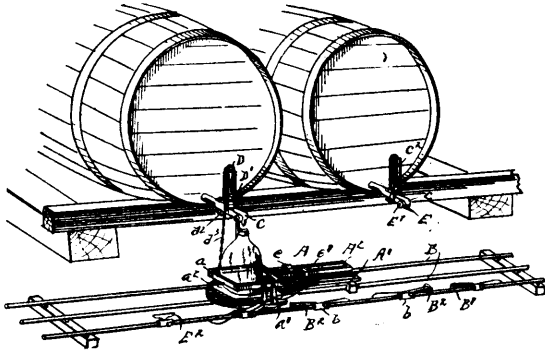
No. 54,912. Gas Engine. (*Machine à gaz.*)



Harry A. Winter, Grand Rapids, Michigan, U.S.A., 8th February, 1897; 6 years. (Filed 15th December, 1896.)

Claim.—1st. In a double-cylinder gas-engine, a base, a partition wall arranged to divide said base into two chambers, a shaft arranged to pass through said base, and a removable bearing for said shaft mounted in said partition-wall, substantially as described. 2nd. In a gas-engine having a plurality of cylinders and partitioned compartments connected with said cylinders, an outside opening in one of said compartments having a removable cover and an inside opening in the partition smaller than the outside and provided with a cover, the said covers forming the bearings of the crank-shaft, substantially as described. 3rd. In combination, the cylinder, the box arranged on the top of the same, said box being provided with outlet-openings and being adapted to be heated by the radiation of the heat from the cylinder, the mixing-chamber and the pipes leading from said heater-box thereto, substantially as described. 4th. In combination, the cylinder, a cap placed on the cylinder with a space between, said cap having turned-over edges forming a closed heating box or chamber, deflecting-plates located in said chamber, and inlet and exit openings to and from said chamber, substantially as described. 5th. In combination in a gas-engine, the igniting device comprising the vertically-movable rod carrying a projection, the stationary contact-arm, the movable contact-arm carrying a fast disc and a loose disc, a yielding connection between said discs with means for adjusting the same, and the trip adapted to be operated by said projection, substantially as described.

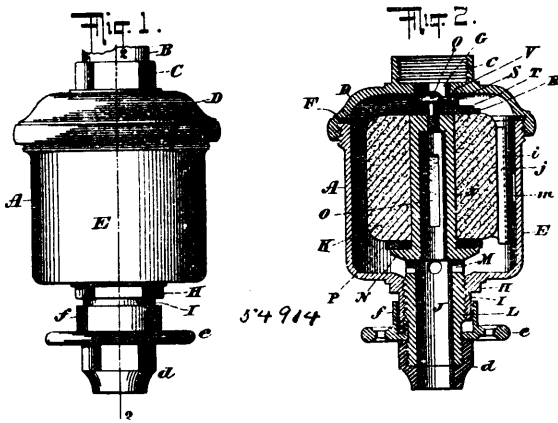
No. 54,913. Liquid Measuring Device.
(*Machine à mesurer les liquides.*)



George W. Curtis, Long Grove, Iowa, U.S.A., 8th February, 1897; 6 years. (Filed 10th December, 1896.)

Claim.—1st. A liquid measuring device, comprising a scale, a track on which the same is mounted, stop-levers mounted on a support extending longitudinally of the track, and means for connecting the scale-beam with the valve-operating mechanism of a faucet, substantially as specified. 2nd. A liquid-measuring device, comprising a scale, a track on which the same is mounted, a rod extending longitudinally of the track at one side thereof, and stop levers adjustably mounted on said rod, the said stop-levers being adapted to engage a shoulder or projection on the scale, substantially as specified. 3rd. A liquid-measuring device, comprising a scale, a faucet, a spring-pressed plug-valve for said faucet provided with an upwardly-extending stem, posts on said faucet carrying a bracket through which the upper end of the valve-stem extends, an angle-lever pivoted between its ends in the upper portions of said posts, the upper end of said lever having a pivotal connection with the upper end of the valve-stem, a latch adapted to engage the lower end of the lever to hold the valve in an open position, and a connection extending from the scale-beam for releasing the said latch, substantially as described. 4th. A liquid-measuring device, comprising a scale, a faucet, a plug-valve for the faucet and having an upwardly-extending stem, a spring for closing the valve, a pivoted lever having one end engaged with the valve-stem, a rock-shaft a latch on the rock-shaft to engage with the lower end of the lever, and a rod attached to the rock-shaft having a counterbalanced lower end and having its upper end adapted for engagement with the scale beam, substantially as described.

No. 54,914. Filter. (*Filtre.*)

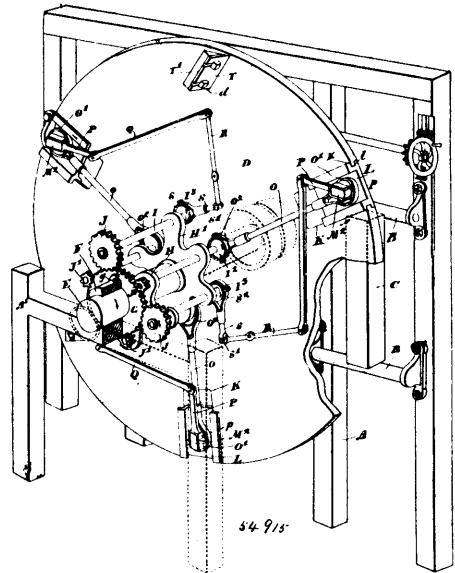


Theodore Linke, New York, State of New York, U.S.A., 8th February, 1897; 6 years. (Filed 11th December, 1896.)

Claim.—1st. A filter, comprising in its construction a casing containing a filtering medium and having a single outlet, and valves above and below the said medium, one of said valves to close the passage through the casing and the other to direct water either through said filtering medium or around it to the outlet, substantially as set forth. 2nd. A filter, comprising in its construction a casing having an inlet and a single outlet and valve-seats adjacent thereto, a perforated tube surrounded by filtering medium and having a valve near each end, and means for moving said tube longitudinally to simultaneously open one valve while closing the other, substantially as set forth. 3rd. In a filter, the casing having the cap and adapted to be applied to the supply pipe, combined with the outlet tube mounted therein, the filtering medium K carried by said tube, the washer S upon the upper end of said filtering material, the valve seat V on said cap for engagement with said washer and surrounding the entrance to said casing, and means for

raising and lowering said tube and filtering medium, substantially as set forth. 4th. In a filter, the casing adapted to be connected with the supply pipe, combined with the revoluble outlet tube therein, the filtering medium K carried by said tube, and the spring scraper *i* secured within the casing and having its edge in contact with the exterior surface of said filtering medium, substantially as and for the purposes set forth. 5th. In a filter, the casing adapted to be secured to the supply pipe, combined with the revoluble outlet tube mounted in said casing, the filtering medium K secured upon said tube, the scraper *i* secured at one end to said casing and at the other end having the flange *j* in contact with said filtering medium, and a spring for keeping said flange against said filtering material, substantially as set forth. 6th. In a filter, the casing E having the cap D and annular flange V, combined with the revoluble outlet tube J mounted in said casing and having the threaded portion L, apertures M, shoulder N and openings O, the filtering medium K mounted upon said tube, means for raising and lowering said tube within said casing, and the washer at the upper end of said filtering medium for engagement with said flange V, substantially as set forth.

No. 54,915. Machine for Manufacturing Excelsior Packing. (*Machine pour la fabrication de garniture.*)

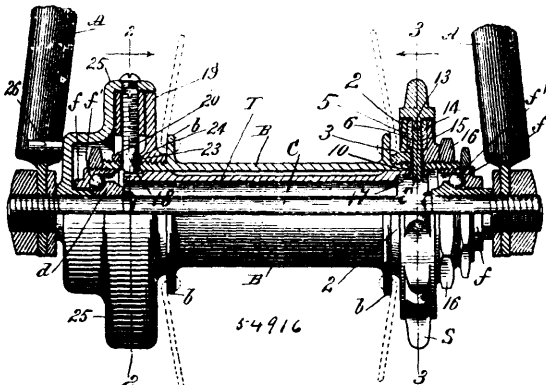


Henry Atcherley Rider, Toronto, Ontario, Canada, 8th February, 1897; 6 years. (Filed 15th December, 1896.)

Claim.—1st. In a machine for making excelsior packing, in combination a rotating disc secured on an adjustable shaft, sets of scoring knives equidistant and supported in radial guideways, and means for causing a reciprocating movement to the knives so as to cause them to travel in a straight line over the chords of the arcs of a concentric circle, and further means to simultaneously keep them parallel with the chords of each arc from end to end as they rotate and for the purpose specified. 2nd. In a machine for making excelsior packing, in combination a rotating disc, supporting blocks peripherally equidistant and provided with side grooves, substantially radial recesses with tongues to fit into the grooves, cylindrical discs provided with a plurality of disc-shaped abutting scoring knives, suitably journaled and having cylindrical shanks extending from corresponding holes in supporting blocks, means for reciprocating the blocks and means for turning the cylindrical shanks as the major disc, secured to the shaft, rotates as and for the purpose specified. 3rd. In a machine for making excelsior packing, in combination a rotating disc, supporting blocks peripherally equidistant and provided with side grooves, substantially radial recesses with tongues to fit into the grooves, cylindrical discs provided with a plurality of disc-shaped abutting scoring knives, suitably journaled and having cylindrical shanks extending through corresponding holes in the supporting blocks, means for reciprocating the blocks and means for turning the cylindrical shanks as the major disc, secured to the shaft, rotates, and corresponding shearing knives for each set of scoring knives suitably secured to the back of the disc and extending obliquely through the radial line of the disc through a slot to the front of the disc, as and for the purpose specified. 4th. In a machine for making excelsior packing, in combination a rotating disc, supporting blocks peripherally equidistant and provided with side grooves, substantially radial recesses with tongues to fit into the groove, cylindrical discs for each block provided with a plurality of disc-shaped abutting scoring knives, suitably journaled and having circular shanks extending through a corresponding hole in the supporting blocks, connecting rods having rings at

their outer ends extending around the cylindrical shanks of the discs and rings at their inner ends, eccentrics fitting therein, means for rotating the eccentrics at a predetermined speed so as to cause the scoring knives as they rotate to move in straight lines forming the chords of arcs, and means for turning the knives to keep them parallel to the straight lines as and for the purpose specified. 5th. In a machine for making excelsior packing, in combination a rotating disc, supporting blocks peripherally equidistant and provided with side grooves, substantially radial recesses with tongues to fit into the grooves, a cylindrical disc for each block provided with a plurality of disc-shaped abutting scoring knives, suitably journaled and having circular shanks extending through a corresponding hole in the supporting blocks, connecting rods having rings at their outer ends and extending around the cylindrical shanks of the discs and rings at their inner ends, eccentrics fitting therein, the spindles of the eccentrics, the gear pinions at the opposite ends of the spindles, the spiders supporting the spindles secured to the shaft, the spur wheel with which the pinions mesh, and means for turning the knives to keep them parallel to the chord straight lines, as and for the purpose specified. 6th. In a machine for making excelsior packing, in combination a rotating disc, supporting blocks peripherally equidistant and provided with side grooves, substantially radial recesses with tongues to fit into the groove, cylindrical discs provided with a plurality of disc-shaped abutting scoring knives, suitably journaled and having cylindrical shanks extending through corresponding holes in the supporting blocks, means for reciprocating the blocks, supplemental shanks to the disc and arms secured to the supplemental shanks, connecting rods Q, levers R, connecting rods S, with rings on the ends, eccentrics caused to rotate within the rings, and means for causing the eccentrics to rotate, as and for the purpose specified. 7th. In a machine for making excelsior packing, in combination a rotating disc, supporting blocks peripherally equidistant and provided with side grooves, substantially radial recesses with tongues to fit into the grooves, cylindrical discs provided with a plurality of disc-shaped abutting scoring knives, suitably journaled and having cylindrical shanks extending through corresponding holes in the supporting blocks, means for reciprocating the blocks, supplemental shanks to the disc and arms secured to the supplemental shanks, connecting rods Q, levers R, connecting rods S with rings on the ends, eccentrics caused to rotate within the rings, spindles of the eccentrics I², spiders H, H¹, supporting the spindles, and gear pinion J at the outer ends of the spindles and spur wheel G with which the pinions J mesh, as and for the purpose specified.

No. 54,916. Brake for Bicycles. (Frein de bicycles.)

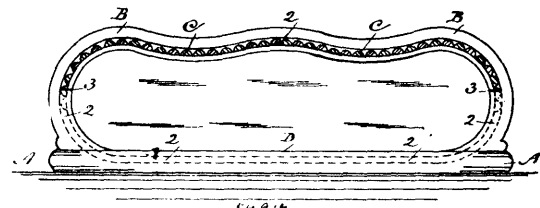


James Herbert Bullard, Springfield, Massachusetts, U.S.A., 8th February, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging therewith and rotatable thereon, a brake element fixed to said wheel-hub on the end thereof opposite to that on which said sprocket-wheel is secured, and rotating therewith, a non-rotatable brake element concentric with said hub, and means within said hub between said sprocket-wheel and said non-rotatable brake element, and actuated by said sprocket-wheel, for effecting the engagement and disengagement of said rotating and non-rotating brake elements, and means for rotating the sprocket-wheel, substantially as described. 2nd. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging therewith and rotatable thereon, means for applying to said sprocket-wheel an adjustable resistance, a brake element fixed to said wheel-hub on the end thereof opposite to that on which said sprocket-wheel is secured and rotating therewith, a non-rotatable brake element concentric with said hub, and means within said hub between said sprocket-wheel and said non-rotatable brake element, and actuated by said sprocket-wheel, for effecting the engagement and disengagement of said rotating brake elements, and means for rotating the sprocket-wheel, substantially as described. 3rd. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging therewith and rotatable thereon, means for applying to said sprocket-wheel an adjustable resistance, a brake element consisting of parts movable in a plane at right angles to the axis of

said hub, pivotally secured thereto and rotating therewith on the end thereof opposite to that on which said sprocket-wheel is secured, a non-rotatable brake element concentric with said hub, and means within the latter between said sprocket-wheel and said non-rotatable brake element, and actuated by said sprocket-wheel, for effecting the engagement and disengagement of said rotating and non-rotating brake elements, and means for rotating the sprocket-wheel, substantially as described. 4th. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging therewith and rotatable thereon, means for applying to said sprocket-wheel an adjustable resistance, a brake element consisting of parts movable in a plane at right angles to the axis of said hub, and pivotally secured thereto and rotating therewith, on the end thereof opposite to that on which said sprocket-wheel is secured, a non-rotatable brake element concentric with said hub, and means within said hub and rotatable therein between said sprocket-wheel and said non-rotatable brake element, actuated by said sprocket-wheel for effecting the engagement and disengagement of said rotating and non-rotating brake elements, and means for rotating the sprocket-wheel, substantially as described. 5th. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging therewith and rotatable thereon, means for applying to said sprocket-wheel an adjustable resistance, a brake element consisting of parts movable in a plane at right angles to the axis of said hub, pivotally secured thereto and rotating therewith, on the end thereof opposite to that on which said sprocket-wheel is secured, a non-rotatable brake element concentric with said hub, and means within said hub for actuating said movable parts consisting of a tube rotatable therein, and operatively engaging by one end said movable parts, and by its opposite end engaged by said sprocket-wheel, whereby it is actuated for effecting the engagement and disengagement of said rotating and non-rotating brake elements, and means for rotating said sprocket-wheel, substantially as described. 6th. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging said hub and rotatable thereon, means for applying an adjustable resistance to said sprocket-wheel, a rotatable brake element consisting of parts attached to said hub, which are movable and adjustable in a plane at right angles to the axis thereof, a non-rotatable element and means within said hub, between said sprocket-wheel and said movable parts, and actuated by said sprocket-wheel for effecting the engagement and disengagement of said rotating and non-rotating brake elements, and means for rotating said sprocket-wheel, substantially as described. 7th. A brake mechanism for bicycles comprising a wheel-hub, a sprocket-wheel engaging said hub and rotatable thereon, means for applying an adjustable resistance to said sprocket-wheel, a rotating brake element consisting of parts attached to said hub which are movable and adjustable in a plane at right angles to the axis thereof, a non-rotatable brake element and means within said hub for effecting the engagement and disengagement of said fixed brake element, and said movable parts, consisting of a tube, cam depressions in said tube with which said movable brake engage, and means of connection between said sprocket-wheel and said tube whereby the rotatory movements of the former actuate the latter, and means for rotating said sprocket-wheel, substantially as described. 8th. In combination, a wheel-hub, a disc on said hub held against rotation thereon, a sprocket-wheel carried on said hub in proximity to said disc and free for a limited rotatable movement thereon, and a second disc having a screw engagement with said hub and thereby adjustable against and from the adjoining side of said sprocket-wheel whereby the latter may be clamped with more or less force between said discs, substantially as set forth.

No. 54,917. Flexible Sliding Top for Caskets. (Couvercle flexible.)

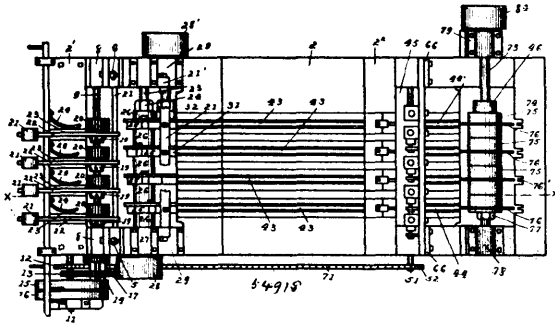


Arthur W. Semmens and James J. Evel, both of Hamilton, Ontario, Canada, 9th February, 1897; 6 years. (Filed 15th December, 1896.)

Claim.—1st. The combination with a casket, a flexible sliding cover, capable of sliding in grooves formed in the inner side of the casket, and into a circular bed or enclosure prepared for its reception, substantially as described. 2nd. The combination in a casket, of a flexible cover capable of sliding in grooves formed in the inner side of the casket, and into a circular bed or enclosure prepared for its reception, substantially as described. 3rd. The combination in a casket of a flexible sliding cover in two parts and a circular bed or enclosure prepared for the reception of said cover, substantially as described. 4th. The combination with a casket, a flexible sliding cover in two parts capable of sliding in grooves formed in the inner side of the casket, and into a circular bed or enclosure prepared for its reception, substantially as described. 5th. The combination

with a casket, a flexible sliding cover capable of sliding in grooves formed in the inner side of the casket, and into a circular bed, or enclosure, one or both sides of the casket being hinged at the base thereof, substantially as described.

No. 54,918. Machine for Making Hoops.
(*Machine pour faire des cercles.*)

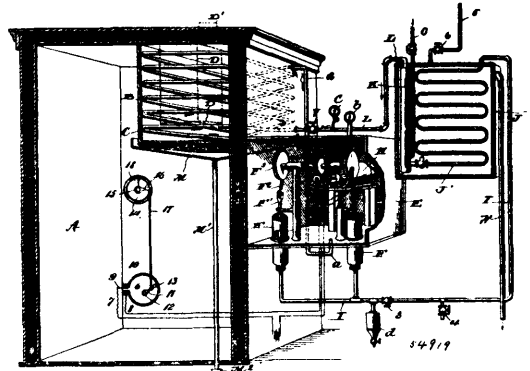


Frank M. Kennedy, Celina, Ohio, and Jane W. Stone, Brooklyn, New York, both in the U.S.A., 9th February, 1897; 6 years. (Filed 9th January, 1897.)

Claim.—1st. In a hoop-making machine, a corrugated or fluted roller loosely fixed upon the supporting shaft as described, having an annular chamber concentric with the said shaft, and provided in said chamber with a plurality of radially arranged springs whose inner end or face bears upon said shaft, whereby the said roller is adapted for a yielding pressure or engagement with the side of the hoop-bar with which it is contacted, all substantially as and for the purpose described. 2nd. In a machine of the class described, a horizontal feeding roller, chambered as described, and provided in said chamber with a series of radial springs or equivalent resilient substance for the purpose of imparting to said roller a yielding pressure, and having a shaft opening of greater diameter than that of the supporting shaft for the purpose specified, substantially as described. 3rd. The combination of the shaft 9 having a fixed diametric pin 19 to loosely engage enlarged diametric perforations in the feeding-roller, the corrugated feed-roller 20 having a shaft opening of greater diameter than that of said shaft, and provided with an annular chamber 20¹ surrounding the concentric with said shaft for the purpose specified, and an annular collar of rubber or other resilient substance closely fitted in said chamber for the purpose of adapting the said roller for a yielding pressure against the hoop-bar upon which it is contacted, all substantially as described. 4th. The combination of the cylindrical cutter-head 25 centrally apertured for the supporting shaft and having a key-way by which it is fixed on said shaft, and provided with a plurality of peripheral recesses arranged as shown, whose peripheral opening is less than the diameter of the contained cutting-bits, for the purpose specified, and the cutting-bits rigidly mounted in said recesses by means of proper holding bolts, all substantially as described. 5th. The combination of the cylindrical cutter-head 25 centrally apertured for the supporting shaft upon which it is rigidly fixed, and having a plurality of peripheral recesses arranged as described, having their peripheral opening of less width and the diameter of the cutting-bits, for the purpose specified, and having in its rear face lateral perforations for the stems of the cutter-bits, and the cutting-bits adapted to be rigidly secured in said recesses by means of an integral stem upon its inner end, and a holding nut adapted to secure said stem in a locked position, all substantially as described. 6th. The combination, in a hoop moulding and sawing machine, of a cross-bar rigidly fixed on frame I, directly above and in close proximity to the lower cutter-heads, a plurality of vertically adjustable presser-bolts arranged in said bar by a screw-threaded connection, and in vertical alignment with the respective cutter-heads, and secured in position by a proper jam nut upon their upper end, and provided upon their lower end with a flattened head or disc adapted to engage the upper face of the hoop-bar while being operated upon by the said cutter-head, all substantially as described. 7th. In a hoop machine, a hoop-bar tilting device comprising a block 48 provided with a rearwardly tapering inclined face 48¹, adapted to receive and tilt the said bar, a guide-plate 49 rigidly connected with said block in parallel arrangement, as shown by the fixed cap or plate 47, and a spring 50 fixed on said cap and having its free end adapted to form a yielding pressure upon the adjacent face of said bar for the purpose of holding it in contact with the supporting table, all substantially as described. 8th. The combination in a hoop machine, of a pair of parallel oblique feeding-roller shafts, arranged in transverse alignment, and in close proximity to the discharge end of a proper tilting device, one of said shafts being rotatably mounted in fixed bearings and having upon its lower end a geared connection with a transverse actuating shaft, and also with the lower end of its companion shaft, as shown, the said companion shaft being rotatably mounted in suitable journal bearings, the lower end of which is pivoted on its support, and the upper journal bearing being adapted for a limited play on its support against the tension of a resisting spring or other resilient substance, whereby a

yielding pressure is imparted to the surmounted feed-roller, the co-operating feed-rollers fixed on said shafts as described and adapted to feed the hoop-bars at a uniform rate of speed by a yielding pressure and present them to the cutting saws in an oblique position, a transverse shaft 51 having a geared connection with said oblique shafts and adapted to drive the same, and means for actuating the said shaft 51, all substantially as described. 9th. The combination in a hoop machine, of the oblique feeding-roller shaft 56¹, rotatable in fixed bearings, as shown, arranged in close proximity to a proper bar tilting device, having upon its lower end a bevel-gear wheel 58, in mesh with a rigid bevel-gear wheel 53 on the actuating shaft 51, having a fixed gear wheel 60¹ near its lower end to drive its companion shaft, and provided with a fixed roller 65¹, the rotatable feed-roller shaft 56 in parallel arrangement with said shaft 56¹, having near its lower end a fixed roller 65 in co-operative relation with said roller 65¹, for the purpose specified, the said shaft 56 having its upper journal box adapted for a limited play on its support against the tension of a resisting spring or resilient substance, for the purpose of adapting the said roller 65 for a yielding pressure against the bar with which it is contacted, the co-operating feeding-rollers 65 and 65¹ fixed on said shafts as described for the purpose specified, the shaft 51 provided with a series of fixed bevel-gear wheels 53 meshing with said wheels 58, and means for actuating the said shaft 51, all substantially as described.

No. 54,919. Refrigerating Apparatus.
(*Appareil réfrigérant.*)



William Frederick Singer, New York, State of New York, U.S.A., 9th February, 1897; 6 years. (Filed 15th January, 1897.)

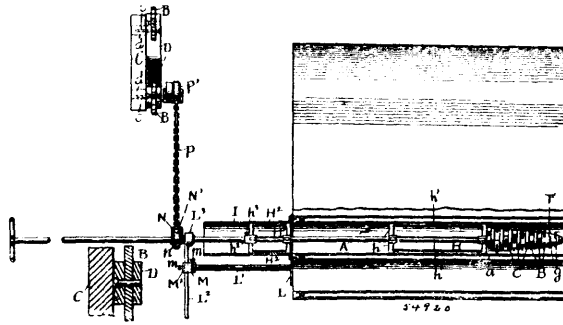
Claim.—1st. In a refrigerating apparatus, a hermetically sealed chamber, the gas return pipe from the expansion coil leading to the chamber, and the gas pump and its motor located in the chamber. 2nd. In a refrigerating apparatus, a hermetically sealed chamber, the gas return pipe leading to and opening freely into said chamber, and the gas pump and its motor located in the chamber. 3rd. In a refrigerating apparatus, a hermetically sealed chamber, the gas return pipe from the expansion coil leading to the chamber, and the gas pump and electric motor located in said chamber, and supply wires passing gas tight through the chamber wall. 4th. A refrigerator, an expansion coil therein, an adjacent hermetically sealed chamber connected to the expansion coil, and the gas pump and its motor in said chamber, and delivering its gas outside thereof. 5th. A refrigerator, an expansion coil therein, a hermetically sealed chamber mounted on a wall of the refrigerator and connected to the expansion coil, and the gas pump and its motor located in said chamber and delivering the gas outside thereof. 6th. A refrigerator, an expansion coil therein, an adjacent hermetically sealed chamber connected to the expansion coil, and the gas pump and its motor in said chamber, and the condenser connected to the pump and pipe leading from the condenser to the expansion coil. 7th. In a refrigerating apparatus, a hermetically sealed chamber, the walls of which are free from penetration by any moving part, the gas return pipe from the expansion coil leading to the chamber, and the gas pump and electric motor located in said chamber, and supply wires passing gas tight through the chamber wall.

No. 54,920. Tube-cleaning Device.
(*Appareil à nettoyer les tubes.*)

Wilber David Forsyth and Enos Thomas Bell, both of Pittsburg, Pennsylvania, U.S.A., 9th February, 1897; 6 years. (Filed 15th January, 1897.)

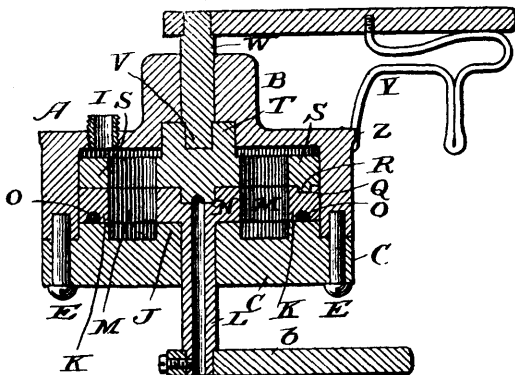
Claim.—1st. A tube-cleaning device, consisting essentially of a series of sets of rolling cutters adapted to be forced through the tube to be operated upon under rapid rotation, said sets being arranged one in front of another, and in a progressively graduated series, whereby each set operates in a path of larger diameter than the preceding set, and carrying devices for said cutters, substantially as specified. 2nd. A tube-cleaning device, consisting essentially of a series of sets of rolling cutters designed to be forced through a tube under rapid rotation, said sets being arranged one in front of another and in progressively graduated series, whereby each set

operates in a path of larger diameter than that in front of it, said cutters being so arranged in spiral relation to the axis of their ca.



rying devices, substantially as specified. 3rd. In a tube-cleaning device, the combination with a rotatable shaft or carrier, of a series of sets of rolling cutters carried thereby and arranged in a progressively graduated series, whereby each set cuts in a path of larger diameter than the one in front of it, and a cone-shaped guide in advance of the foremost set, substantially as specified. 4th. The herein described boiler tube cleaner, comprising a rotatable shaft, a graduated series of rolling cutters carried thereby, a guide in advance of said cutters, a guide and feed regulator back of said cutters, guide bearing for said shaft within the tube operated upon, and a driving pulley for said shaft and through which the shaft is movable, substantially as specified. 5th. In a tube-cleaning device, the combination with a rotatable shaft, of a series of cutter carrying sections or discs mounted thereon, a set of rolling cutters carried by each of said sections or discs, a cone-shaped guide in advance of said sections or discs, and a guide and feed regulating device behind said sections or discs, substantially as specified. 6th. In a tube-cleaning device, the combination with a rotatable shaft, of a series of cutter carrying sections mounted on said shaft to rotate therewith, a set of rolling cutters carried by each of said sections, a cone-shaped guide in advance of said sections, and a series of similar cutters carried by said guide, substantially as specified. 7th. In a device for cleaning boiler tubes, the combination with the driving shaft which carries the cleaners, of the rods or tubes adapted to be secured to the header of the boiler being cleaned, a transverse bar M supported thereby, a clamp M' arranged to slide upon said bar, a post L' adjustably held in a socket of said clamp and having a socket portion at its upper end through which said shaft loosely passes, a stirrup N having a sleeve n secured in said socket portion, a driving pulley journaled in said stirrup and having a slidable spline and groove connection with said shaft and driving mechanism for said pulley, substantially as specified.

No. 54,921. Valve for Steering Apparatus, Elevators, etc. (*Souape pour appareil à gouverner, éleveurs, etc.*)

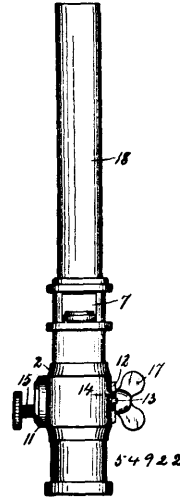


Alfred Richard Boluss, Jersey City, New Jersey, U.S.A., 9th February, 1897; 6 years. (Filed 15th January, 1897.)

Claim.—1st. In combination with the bottom seat C constructed as described, and casing A with inlet I, the central cut-off disc K with semi-circumferential grooves O, O', oblique passages P, P', slot Q and hollow stem L, the upper disc S with central hub e, radial passages d, e, ports f, g, stud R and bifurcated hub T, the vertical operating stem or rod W with T-head V, and handle X, substantially as and for the purposes set forth. 2nd. In combination with the seat C, valve-casing A, and contained discs K, S, constructed and arranged as described, the handle X and power-transmitting device b, or its equivalent, substantially as and for the purpose set forth. 3rd. In combination with the seat C and casing A constructed and arranged as described, the contained discs K and S, and means substantially as described for controlling the axial movement of the disc K, as and

for the purposes set forth. 4th. In a valve such as described, the central disc K, provided with a motion transmitting stem L, having the extent and direction of its rotation controlled through the medium of the disc S and handle X, substantially as described.

No. 54,922. Burner. (*Bec à gaz.*)

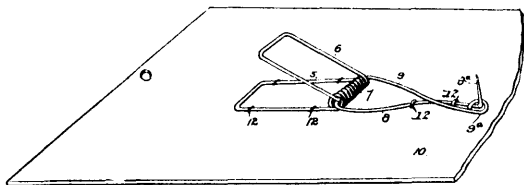


Frederick W. Magee, London, Ontario, Canada, 9th February, 1897; 6 years. (Filed 13th January, 1896.)

Claim.—1st. A body, 2, in which air inlets, 7, are formed, in combination with a burner tube, 18, in which air inlets, 19, are formed, substantially as and for the purpose set forth. 2nd. A body, 2, in which air inlets, 7, are formed, in combination with a burner tube, 18, in which air inlets, 19, are formed, and a hollow jamb nut, 30, substantially as and for the purpose set forth. 3rd. A perforated inverted cup, 20, in combination with an adjustable plate, 22, substantially as and for the purpose set forth. 4th. A body, 2, in which air inlets, 7, are formed, and a burner tube, 18, in which air inlets, 19, are formed, in combination with the inverted perforated cup, 20, and adjustable plate, 22, substantially as and for the purpose set forth. 5th. The inverted perforated cup and a device located therein for regulating the perforation in said cup, in combination with a bridge plate in which a screw-threaded socket is formed, in which socket the stem supporting the perforation regulating device is adjustable, substantially as and for the purpose set forth. 6th. An automatic regulating device, 29, stem, 27, and bridge plate, 26, in combination with the perforated inverted cup, 20, substantially as and for the purpose set forth. 7th. An automatic regulating device, 29, stem, 27, and bridge plate, 26, in combination with the perforated inverted cup, 20, and plate, 22, substantially as and for the purpose set forth. 8th. A body, 2, in which air inlets, 7, are formed, and a burner tube, 18, in which air inlets, 19, are formed in combination with the jamb nut, 30, perforated plate or bridge, 26, stem, 27, automatic regulating device, 29, inverted perforated cup, 20, and plate, 22, substantially as and for the purpose set forth. 9th. A body, 2, in which air inlets, 7, are formed, and set screw, 34, in combination with burner tube, 18, in which air inlets, 19, are formed, substantially as and for the purpose set forth. 10th. A body, 2, in which air inlets, 7, are formed, in combination with screen, 33, substantially as and for the purpose set forth. 11th. A controlling and regulating device, 4, in which passage, 8, is formed, in combination with a supplemental regulating device, 15, substantially as and for the purpose set forth. 12th. A controlling and regulating device, 4, in which passage, 8, chamber, 9, and series of passages, 10, are formed, in combination with the body, 2, in which the series of passages, 5, are formed, substantially as and for the purpose set forth. 13th. A controlling and regulating device, 4, in which passage, 8, chamber, 9, and series of passages, 10, are formed, and the supplemental regulating device, 15, in combination with the body, 2, in which the series of passages, 5, are formed, substantially as and for the purpose set forth. 14th. A body, 2, provided with projection, 13, in combination with the controlling and regulating device, 4, provided with recess, 14, substantially as and for the purpose set forth. 15th. A body, 2, in which air inlets, 7, and passages, 5, are formed, and a burner tube, 18, in which air inlets, 19, are formed, the inverted perforated cup, 20, and plate, 22, in combination with the controlling and regulating device, 4, in which the passages, 8 and 10, and chamber, 9, are formed, substantially as and for the purpose set forth. 16th. A body, 2, in which air inlets, 7, and passages, 5, are formed, and a burner tube, 18, in which air inlets, 19, are formed, the inverted perforated cup, 20, and plate, 22, in combination with the controlling and regulating device, 4, in which the passages, 8 and 10, and chamber, 9, are formed, and the supplemental regulating device, 15, substantially as and for the purpose set forth. 17th. A body, 2, in which air inlets, 7, and passages, 5, are formed, and a burner tube, 18, in which air inlets, 19, are formed, in combination

with the controlling and regulating device, 4, in which the passages, 8 and 10, and chamber, 9, are formed, substantially as and for the purpose set forth. 18th. A body, 2, in which air inlets, 7, and passages, 5, are formed, and a burner tube, 18, in which air inlets, 19, are formed, in combination with the controlling and regulating device, 4, in which the passages, 8 and 10, and chamber, 9, are formed, and the supplemental regulating device, 15, substantially as and for the purpose set forth. 19th. A body, 2, in which air inlets, 7, and passages, 5, are formed, and a burner tube, 18, in which air inlets, 19, are formed, the inverted perforated cup, 20, plate, 22, and the automatic regulating device, 29, in combination with the controlling and regulating device, 4, in which the passages, 8 and 10, and chamber, 9, are formed, substantially as and for the purpose set forth. 20th. A ring, sleeve or collar, 20, having a perforated plate secured to or formed integral with one end thereof, in combination with a plate, 22, substantially as and for the purpose set forth.

No. 54,923. Bill File. (*Serre papier.*)

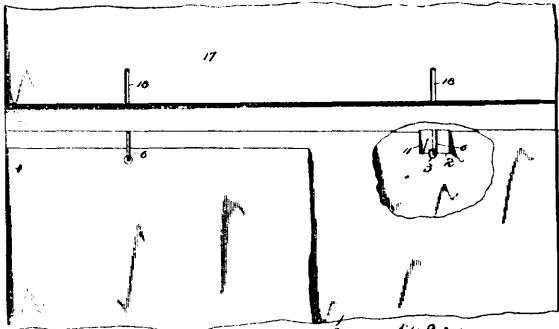


54923

James M. Butcher, Asahel M. Andrews and Thomas J. Brunk, all of Denver, Colorado, U.S.A., 9th February, 1897; 6 years. (Filed 16th December, 1896.)

Claim.—1st. As an improved article of manufacture, a device of the character described, formed from a single piece of wire, and comprising the base loop, the spring supported thumb loop, the forward extension 9 terminating in a loop or eye 9^a, and the forward extension 8 terminating in a hook or brad 8^a adapted to pass through the eye 9^a, substantially as described. 2nd. As an improved article of manufacture, a device of the character described, comprising the coil 7, the base loop 5, the extension 8 terminating in a brad 8^a, the thumb loop 6, and the extension 9 terminating in the eye or loop 9^a, the several elements being arranged substantially as described. 3rd. As an improved article of manufacture, a device of the class described, comprising the coil 7, the base loop 5, forming a continuation of the wire at one extremity of the coil, the extension 8 forming an extension of the loop 5 after the wire passes through the coil, the part 8 terminating in a brad 8^a, the thumb loop 6 forming a continuation of the coil 7, the extension 9 forming a continuation of the loop 6 after the wire passes through the coil in the opposite direction, the part 9 terminating in an eye or loop through which the brad 8^a is to pass, substantially as described. 4th. The combination with a suitable supporting card or base, of a bill file suitably attached thereto, and comprising the base loop 5, the extension 8 having the hook 8^a, the spring supported thumb loop 6, and the extension 9 having the eye or loop 9^a co-operating with the hook, substantially as described. 5th. As an improved article of manufacture, a device of the class described, comprising the spring coil, the forward extension terminating in a brad, the rearward extension forming a thumb loop, and the forward extension forming a loop through which the brad projects, substantially as described.

No. 54,924. Temporary Binder. (*Lien temporaire.*)



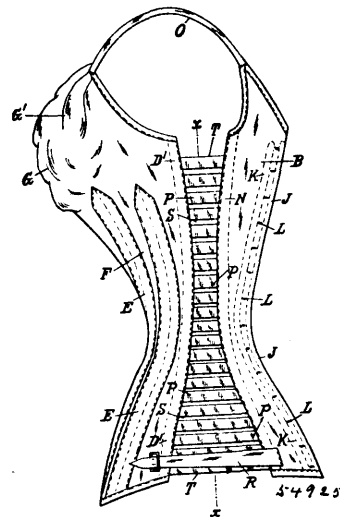
54924

Homer J. Hotchkiss, Ithaca, New York, U.S.A., 9th February, 1897; 6 years. (Filed 23rd December, 1896.)

Claim.—1st. In a temporary binder, the combination with a support having an opening, and a clip secured to the support and having a fold and a portion extending over a part of the said opening, of an arched file hook having a lateral pintle at one end fitted in the fold of the clip and having its opposite end bent and adapted to be passed into the aforesaid opening and automatically engage with the projecting portion of the clip, substantially in the manner and for the purpose specified. 2nd. In a temporary binder, the

combination with a support or backing, of a clip formed of sheet metal having a slot between its ends and a notch in one of the said ends, and a file hook having a pintle thrust through the said slot of the clip and operating in the fold of the latter, and having its free end bent to be passed through the said notch, substantially as set forth for the purpose described. 3rd. In combination, a support or backing having a slit a short distance from its edge and having an opening intersecting with the slit, a clip constructed from a blank having a slot between its ends and a notch in one end, said blank being folded over the edge of the support and having an end portion passed through the said slit and clinched upon the opposite end portion, and a file hook journaled in the fold or bight of the blank and having its free end bent and adapted to be passed through the said notch, substantially as set forth. 4th. In combination, a support or backing, a clip secured thereto and having openings 8 and 10 out of alignment, and a file hook journaled to the clip and operating in the opening 8, and having its free end bent and adapted to be passed through the opening 10 and engage with the clip to one side of the said opening, substantially as set forth. 5th. In combination, a support having a slit a short distance from its edge, an opening intersecting with the slit, and having a notch or depression in its outer edge opposite an end portion of the slit, a clip having a slot between its ends and folded over the edge portion of the support, and having a notch in one end, and having an end portion passed through the said slit and clinched upon the opposite end portion, the said notch in the end of the clip registering with the opening intersecting with the slit, and a file hook having a pintle fitted in the space provided by notching the support, and having its free end bent and adapted to engage with a portion of the clip adjacent to the notch therein, substantially as set forth. 6th. The combination with the support having a straight and an inclined notch in its edge, and a clip fitted to the edge of the support and enclosing the said notches, of a file hook having a pintle at one end to be detachably connected with the clip and having its free end constructed to engage with the clip, substantially as and for the purpose set forth. 7th. In combination a support or backing having a straight and an inclined notch in its edge, a clip fitted to the edge portion of the support and having a substantially L-shaped slot adjacent to the edge portion of the support, and a file hook having a pintle to be detachably connected with the clip by being removably inserted in the slot thereof, substantially in the manner and for the purpose described.

No. 54,925. Corset. (*Corset.*)



54925

Clara E. Woodworth, London, Ontario, Canada, 9th February, 1897; 6 years. (Filed 7th January, 1897.)

Claim.—1st. A corset, the side sections T, T, of which are composed of elastic bands P, P, longer at the top and bottom than at the waist and separated by the openings S, S, substantially as and for the purpose set forth. 2nd. A corset, the side sections T, T, of which are composed of elastic bands P, P, separated by the openings S, S, the bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, substantially as and for the purpose set forth. 3rd. A corset, the side sections T, T, of which are composed of elastic bands P, P, longer at the top and bottom than at the waist and separated by the openings S, S, the bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, substantially as and for the purpose set forth. 4th. A corset consisting of a front F, formed in two divisions f¹, f², and a back B, formed in two divisions b¹, b², each provided with stiffening stays, in combination with side sections T, T, formed of elastic bands P, P, longer at the top and bottom than at the waist, and separated by the openings S, S, substantially as and for the purpose set forth. 5th. A corset consisting of a front F

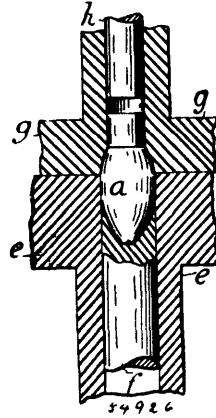
formed in two divisions f^1, f^2 , and a back B, formed in two divisions b^1 and b^2 , each provided with stiffening stays in combination with the side sections T, T, formed of elastic bands P, P, separated by the openings S, S, the elastic bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, substantially as and for the purpose set forth. 6th. A corset consisting of a front F, formed in two divisions f^1 and f^2 , and a back B formed in two divisions b^1 and b^2 , each provided with stiffening stays in combination with the side sections T, T, formed of elastic bands P, P, longer at the top and bottom than at the waist and separated by the openings S, S, the elastic bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, substantially as and for the purpose set forth. 7th. A corset consisting of a front F, and a back B, the upper part of the front F being formed in loose folds G, and with the extension G^1 , in loose folds, and the back B, with the extension B^1 , and the shoulder straps O, O, in combination with the side sections T, T, composed of elastic bands P, P, separated by the openings S, S, substantially as and for the purpose set forth. 8th. A corset consisting of a front F and a back B, the upper part of the front F being formed in loose folds G, and with the extension G^1 in loose folds, and the back B with the extension B^1 , and the shoulder straps O, O, in combination with the side sections T, T, composed of elastic bands P, P, separated by the openings S, S, the elastic bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, substantially as and for the purpose set forth. 9th. A corset consisting of a front F, formed in two divisions f^1, f^2 and with the loose folds G, and extension G^1 , in loose folds, and provided with the stiffening stays C^1, C^2, D^1 , and E, in combination with the back B, formed in two sections b^1, b^2 , and with the extension B^1 , and provided with the stiffening stays J, K, and N, and the slide section, T, T, formed of elastic bands P, P, separated by the openings S, substantially as and for the purpose set forth. 10th. A corset consisting of a front F, formed in two divisions f^1, f^2 , and with the loose folds G, and extension G^1 , in loose folds, and provided with the stiffening stays C^1, C^2, D^1 , and E, in combination with the back B, formed in two sections, b^1, b^2 , and with the extension B^1 , and provided with the stiffening stays J, K, and N, and the side sections T, T, formed of elastic bands P, P, longer at the top and bottom than at the waist and separated by the openings S, the bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, substantially as and for the purpose set forth. 11th. A corset consisting of a front F, formed in two divisions f^1, f^2 , and with the loose folds G, and extension G^1 , in loose folds, and provided with the stiffening stays C^1, C^2, D^1 , and E, the clasps H, and the headed studs I, in combination with the back B, formed in two sections, b^1, b^2 , and with the extension B^1 , and provided with the stiffening stays J, K, and N, eyelets L, laces M, and the side sections T, T, formed of elastic bands P, P, separated by the openings S, substantially as and for the purpose set forth. 12th. A corset consisting of a front, F, formed in two divisions f^1, f^2 , and with the loose folds G, and extension G^1 , in loose folds, and provided with the stiffening stays C^1, C^2, D^1 , and E, the clasps H, and the headed stud I, in combination with the back B, formed in two sections b^1, b^2 , and with the extension B^1 , and provided with the stiffening stays J, K, and N, eyelets L, laces M, and the side sections T, T, formed of elastic bands P, P, longer at the top and bottom than at the waist, and separated by the openings S, the bands above the waist being formed of a single thickness, and those at the waist and at the bottom of the corset of two or more folds or thicknesses of elastic material, and the straps R, R, substantially as and for the purpose set forth. 13th. A corset comprising front sections, back sections, means for adjusting the back sections, and side sections consisting of a series of transverse elastic bands having spaces between them, and gradually increasing in length from the waist line of the corset in both an upward and downward direction, the bands above the waist line of the corset being formed of a single thickness of material and those at the waist line of the corset and adjacent thereto beneath the waist line being formed of two or more folds or thicknesses of material so that the upper bands may yield more readily than the lower bands on account of the figure being larger above the waist line of the corset than beneath it, substantially as described.

No. 54,926. Metallic Capsule. (Capsule métallique.)

Aerators Limited, London, England, assignee of Emile Sterné, Paris, France, 9th February, 1897; 6 years. (Filed 12th January, 1897.)

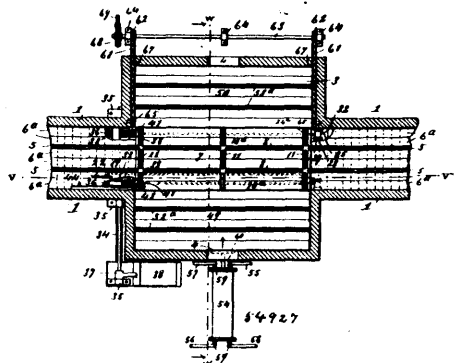
Claim.—1st. The manufacture of capsules or containers of hard strong metal capable of sustaining great internal pressure and having fine necks with small inlet apertures by the combination of processes and apparatus herein set forth and consisting of first, forming a cup from a blank by the ordinary process secondly, shaping the base of the capsule by the aid of a suitably shaped die to receive the closed end of the cup, a centrally recessed punch acting within the latter, and an external punch or tool indenting the said base; thirdly, by the aid of a series of suitable dies, co-acting dies, and forcing and expelling plungers, and intermediate annealing of only

such part as is to be reduced, forcing the open end of the cup into the co-acting dies, thus first forming the shoulder of the capsule or



container and then gradually reducing the neck to the desired dimensions substantially as herein set forth. 2nd. In the manufacture of capsules or containers of hard strong metal, capable of sustaining great internal pressure and having fine necks with small inlet apertures by first forming a cup from a blank by the usual method; secondly, shaping the base of the capsule and indenting the same by the aid of specially formed die, plunger and co-acting punch or tool; third, forming the shoulder of the capsule and gradually reducing the part to form the neck by the use of a series of specially formed dies, co-acting dies and forcing and ejecting plungers combined with intermediate annealing of only that part which is to be reduced at each operation, substantially as herein set forth. 3rd. In the manufacture of capsules or containers of hard strong metal capable of sustaining great internal pressure and having fine necks with narrow inlet apertures, the process of annealing from time to time only so much of the part to form the shoulder and neck as is operated on at each action of the dies and plungers, substantially as herein set forth and for the purpose stated. 4th. The process of manufacturing capsules or containers of hard strong metal capable of sustaining great internal pressure and having fine necks with narrow inlet apertures, by a succession of graduated operations on a previously prepared cup, to form the shoulder and neck of the capsule, and by annealing previous to each operation only such part of the material, hardened by the previous operation, as to be operated upon whereby the material at the upper part of the capsule towards the neck receives a gradually increasing thickness, thereby enabling a thin neck with narrow inlet aperture to be formed and materially increasing the resistance of the capsule against great internal pressure, substantially as herein set forth. 5th. In the manufacture of capsules or containers of hard strong metal capable of sustaining great internal pressure and having fine necks with small inlet apertures, the employment of annealing apparatus, such as that represented at Figs. 13, 14, 15, whereby only so much of the neck as is required to be operated upon at a given time is annealed whilst the body of the same is protected from the heat substantially as herein set forth.

No. 54,927. Railway Siding. (Voie d'évitement.)

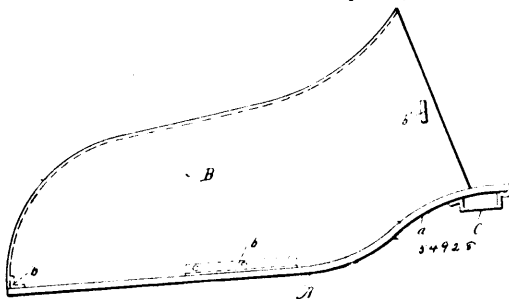


Wallace R. Kirk, Kansas, Missouri, U.S.A., 9th February, 1897; 6 years. (Filed 15th January, 1897.)

Claim.—1st. A railway siding, comprising a vertically movable platform or table, and an auxiliary laterally movable platform adapted to be moved upon the vertically adjustable platform or to one side of the vertically adjustable platform, substantially as described. 2nd. A railway siding, comprising a vertically movable platform or table, and legs hinged to the under side of said platform and adapted to unfold and support said platform, substantially as

set forth. 3rd. A railway siding, comprising a platform having longitudinal tracks thereon, and means to elevate and depress said platform, in a vertical plane, in combination with a laterally movable platform adapted to be moved upon or to one side of the vertically movable platform, substantially as set forth. 4th. A railway siding, comprising a vertically movable platform or table, provided with track rails, and legs hinged to the under side of said platform and adapted to support said platform, and means to trip said legs when desired to depress said platform, substantially as described. 5th. A railway siding, comprising a vertically movable platform, provided with track-rails and weights adapted to counterbalance said platform, and a laterally movable platform adapted to be moved upon or to one side of the vertically movable platform, substantially as set forth. 6th. In a railway siding, the combination with a main line track, of a vertically adjustable platform provided with longitudinal track rails, adapted to form a continuation of the main line, when the platform is in its elevated position, and a weight adapted to counterbalance said platform, and a laterally movable platform adapted to rest upon or to one side of the vertically movable platform, substantially as set forth. 7th. A railway siding, comprising a central platform provided with a longitudinal track, a number of hydraulic jacks located beneath and adapted to elevate said platform, in combination with a laterally movable platform adapted to rest upon or to one side of the vertically movable platform, substantially as set forth. 8th. A railway siding, comprising a vertically movable platform provided with longitudinal track rails, and a number of supporting-legs hinged to the under side of said platform, a link-bar pivotally connecting said supporting-legs and a lever pivotally connected to said link-bar, substantially as and for the purpose set forth. 9th. A railway siding, comprising a vertically movable platform provided with longitudinal track rails, and provided with lateral track rails, in combination with a laterally movable or auxiliary platform mounted on wheels or rollers and adapted to travel on the transverse rails of the central platform, substantially as set forth. 10th. A railway siding, comprising a vertically movable platform provided with longitudinal main track rails and with transversely extending rails, and laterally movable side or auxiliary platforms, and means to move said side or auxiliary platforms upon or from said vertically adjustable platforms, substantially as described. 11th. A railway siding, comprising a vertically movable platform, provided with longitudinal track rails, and provided with transversely arranged track rails, in combination with a laterally movable platform mounted upon rollers, and adapted to move by gravity upon the central platform when depressed, and means for withdrawing said laterally movable platform to its original position, substantially as set forth. 12th. A railway siding comprising a vertically movable platform provided with longitudinally arranged track rails, in combination with a laterally movable platform, adapted to move upon the vertically movable platform when depressed, and longitudinally arranged track rails upon said laterally movable platform, adapted to form a continuation of the main line when the laterally movable platform is upon the vertically movable platform, substantially as described. 13th. A railway siding, comprising a vertically movable platform, provided with longitudinal and transverse track rails, a stationary platform, at one side of said vertically movable platform, and transverse track rails upon said platform, adapted to align with the transverse track rails of the vertically movable platform at times, and a laterally movable platform mounted upon rollers resting upon the track rails of the stationary platform, and adapted to move upon the vertically movable platform when depressed, substantially as described. 14th. A railway siding, comprising a vertically movable platform, provided with longitudinal and transverse track rails, a stationary platform located at one side of said vertically movable platform, and having track rails longitudinally aligned with the transverse rails of the vertically movable platform, and inclined downwardly and inwardly so that the inner end of said rails is in the same horizontal plane as the transverse rails of the vertically adjustable platform when depressed, and a laterally movable platform mounted upon rollers, resting upon said inclined tracks, and means to hold said laterally movable platform upon the inclined rails, substantially as set forth.

No. 54,928. Foot-Guard. (Garde-pieds.)



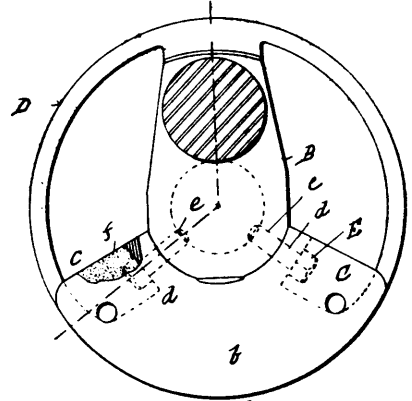
Henry Kelly, Lennoxville, Quebec, Canada, 9th February, 1897; 6 years. (Filed 16th January, 1897.)

Claim.—A foot-guard comprising a flat bottom plate provided with an upwardly curved rear portion, a loop on the underside of the said

rear portion, and a concavo-convex plate secured to the said bottom plate and provided with slots at its rear end, substantially as set forth.

No. 54,929. Crank Disc for Engines.

(Manivelle à disque pour machines à vapeur.)

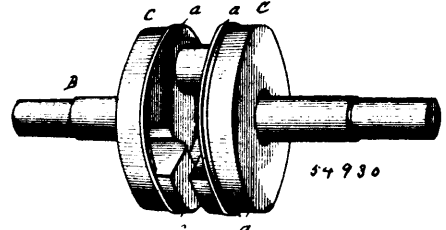


Edwin J. Armstrong, Oswego, New York, U.S.A., 9th February 1897; 6 years. (Filed 18th January, 1897.)

Claim.—The combination, with a crank-shaft A having screw-threaded openings *c* in its web B, of a disc D having pockets *e* formed in its counterweight *b* and bolt-holes *d* through the walls of said pockets, screw-bolts E entering the threaded openings in the web through the bolt-holes in the walls of said pockets, and a filling *f* of readily-fusible metal for said pockets, whereby the heads of said screw-bolts may be rigidly secured in place after tightening, substantially as described.

No. 54,930. Crank Disc for Steam Engines.

(Manivelle à disque pour machines à vapeur.)

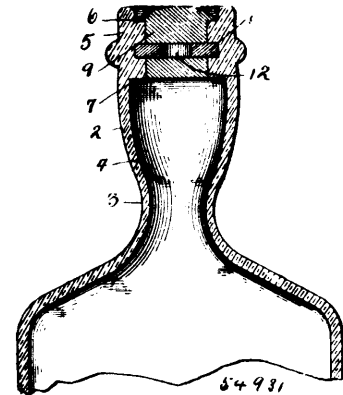


Edwin J. Armstrong, Oswego, New York, U.S.A., 9th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. A crank disc for steam engines having a peripheral oil collecting rib *a* formed thereon, whereby the oil collected on the disc will be led to and thrown off by said rib, substantially as and for the purpose described. 2nd. The combination, in a steam engine, of a crank disc C, having a peripheral oil collecting rib *a* formed thereon, and a casing D arranged above said disc to cover said rib, whereby any oil collecting on the disc will be thrown off by said rib within the casing, substantially as described.

No. 54,931. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)



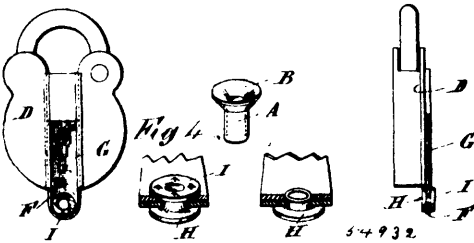
Alexander Lemieux, Montreal, Quebec, Canada, 9th February, 1897; 6 years. (Filed 16th January, 1897.)

Claim.—1st. An anti-refilling bottle provided as to its neck with an internally arranged groove, in combination with a stopper pro-

vided with an aperture leading therethrough from side to side, opposing catches slidingly arranged in said aperture, and an expansive spring interposed between said catches for forcing them normally apart and into engagement with said groove, substantially as described. 2nd. The combination with a bottle provided as to its neck with an internal groove or notch, of a stopper fitting in said neck and provided with a spring-actuated catch adapted to project beyond the surface of the stopper and to enter said notch, substantially in the manner and for the purpose described. 3rd. A bottle provided with a neck and reduced or contracted in size at the junction of the neck with the main body of the bottle, substantially as and for the purpose described. 4th. A bottle provided as to its neck with an internal flange or thickened portion forming spaced annular shoulders, in combination with a stopper adapted to fit within the flanged portion of the neck and provided with an enlarged head adapted to seat itself against one of said shoulders, said stopper being provided with a through aperture of substantially rectangular cross sectional shape, opposing catches of corresponding shape slidingly fitted in said aperture, and a spring interposed between said catches and adapted to force the same outward into engagement with the neck of the bottle, substantially as described.

No. 54,932. Combined Seal and Fastener.

(*Cachet et attache combinés.*)



John George Glover and Richard Thomas Glover, both of Clerkenwell, London, England, 9th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. As a means for temporarily locking the keyhole cover plate of a padlock, making said cover plate of such depth and with a hole in its lower end that it can project beyond the bottom of the lock body, and the insertion of a short length of soft metal into said hole, and by a crushing up of both ends a sealing is effected, as specified. 2nd. As a lock-sealing appliance, a hollow or short tubular length of soft metal which when passed into the holes of extension pieces of lock face plate and keyhole cover respectively have the exposed end or ends crowded up and slayed outwardly, as and for the purposes specified. 3rd. In combination with extensions of lock face plates and keyhole cover plates having holes in the exposed portions, a hollow or solid pin or short length of soft metal which by pressure can be flattened and caused to bear upon or in contact with the two exposed portions of the plates mentioned as a means of sealing said hole cover plate over the keyhole of a lock, as and for the purposes specified. 4th. In a combined seal and fastener, so making a lock or locking device that it has two permanent or movable portions which when brought coincident with one another shall be secured by a hollow or solid plug passed through holes thereof and impressed to indicate by marks thereon whether or not the lock has been tampered with, as set forth.

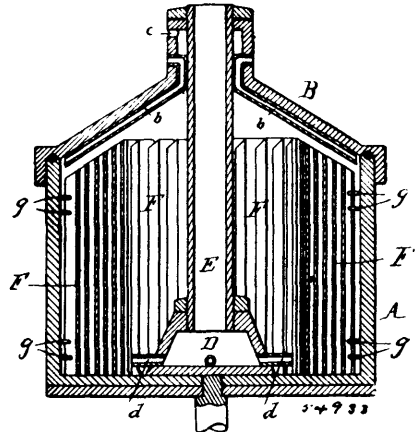
No. 54,933. Centrifugal Liquid Separator.

(*Séparateur centrifuge de liquides.*)

David H. Burrell and Edward J. Burrell, both of Little Falls, assignees of Matthew LaRue Hoyt, Birtchton, all in New York, U.S.A., 9th February, 1897; 6 years. (Filed 18th January, 1897.)

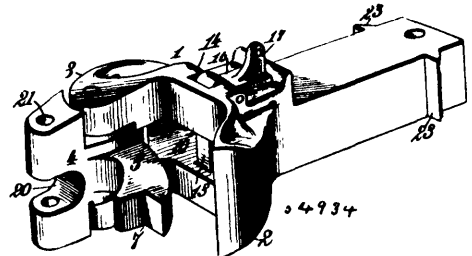
Claim.—1st. The combination with the bowl of a centrifugal liquid separator, of a division contrivance arranged within the liquid space of the bowl and consisting of a circumferential series of upright division blades which are loosely connected with each other and capable of swinging out and supporting themselves at their outer edges against the peripheral wall of the bowl, substantially as set forth. 2nd. The combination with the bowl of a centrifugal separator, of an expansible division contrivance consisting of a series or row of division blades connected with each other by movable joints, the ends of the series being disconnected from each other, whereby the series of blades can be arranged in the bowl circumferentially or in a circular form and can support themselves against the inner side of the bowl, substantially as set forth. 3rd. The combination with the bowl of a centrifugal liquid separator, of a division contrivance arranged within the liquid space of the bowl and consisting of a series or row of upright division blades which intersect the radial lines of the bowl and which are connected with each other by movable joints, substantially as set forth. 4th. The combination with the bowl of a centrifugal liquid separator, of a division contrivance arranged within the liquid space of the bowl and consisting of a series or row of upright division blades which intersect the radial lines of the

bowl and which are provided with spacing projections and are connected with each other by movable joints, substantially as set forth.



5th. The combination with the bowl of a centrifugal liquid separator, of a division contrivance arranged within the liquid space of the bowl and consisting of a series or row of upright division blades which intersect the radial lines of the bowl and links which connect the upright edges of adjacent blades at one end of the series or row of blades, substantially as set forth.

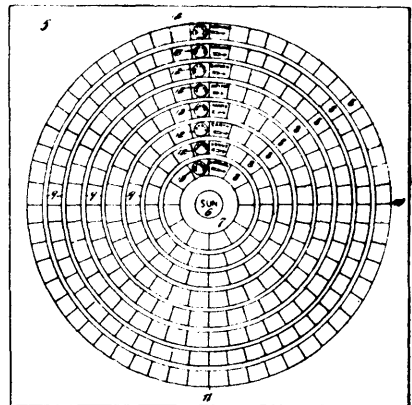
No. 54,934. Car Coupling. (*Attelage de chars.*)



Cornelius Halpin, Tarrytown, Edgar Matthew Smith, Brooklyn, and Frederick William Smith, Tarrytown, all in New York, U.S.A., 9th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—In a car coupling, the combination of a recessed draw-head slotted at top and bottom, a pivotal hooked jaw provided with a tail-piece normally projecting across the draw-head mouth and having in its end a V-shaped notch with squared vertical sides, a locking dog pivoted to swing forward and rearward in the slotted and recessed draw-head and adapted to be swung back by said tail-piece and become interlocked with the V notch therein to secure the hooked jaw in a closed and locked position, a spring to hold the said dog to its engagement with the notched tail-piece, a transversely arranged pin to support said spring, means for swinging the said dog rearward to release the closed jaw, and a spring to throw the released jaw outward, substantially as shown and described.

No. 54,935. Game. (*Jeu.*)

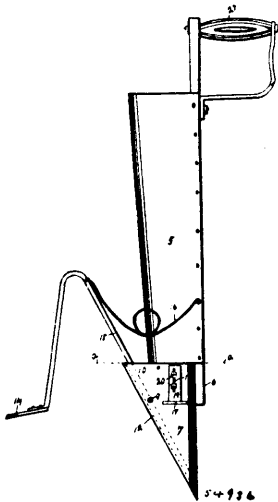


Howard Rowland Griswold, Hartford, Connecticut, U.S.A., 10th February, 1897; 6 years. (Filed 21st December, 1896.)

Claim.—1st. A game device comprising two separate boards, one of which is larger than the other, the larger board being

provided with a plurality of concentrically arranged annular spaces which are divided transversely into blocks or spaces, of similar form and size, the blocks or spaces in one radial line being characteristically named or distinguished from each other, a plurality of discs equal to the number of said blocks or spaces in said radial line, said discs being similarly named or distinguished, and the other board being provided with a diagram consisting of two annular spaces, which are concentrically arranged and divided radially into a number of blocks or spaces equal to said discs, the blocks or spaces in the outer annular space being named or distinguished in the same manner as said discs, and the blocks or spaces in the inner annular space being numbered, and said plate or board being also provided centrally of said diagram with two pivoted arrows, one of which points to said inner annular space, and the other to said outer annular space, substantially as shown and described. 2nd. A game device which comprises a suitable board or boards, on which are formed two separate diagrams, one of which is larger than the other, and comprises a plurality of concentrically arranged annular spaces, which are divided by radial lines into blocks or spaces of equal size, the blocks or spaces in one radial line being named or characteristically distinguished, a plurality of discs which equal in number the blocks or spaces in said radial line, and which are correspondingly named or distinguished, and the smaller diagram being composed of two annular spaces arranged concentrically around a central circular space, said annular space being divided by radial lines into blocks or spaces which correspond in number with said discs, said blocks or spaces in one of said annular spaces being named or distinguished in the same manner as said discs, and the blocks or spaces in the other annular space being numbered, and said smaller diagram being also provided with two arrows which are pivotally mounted therein, and one of which points to each one of said annular spaces, substantially as shown and described.

No. 54,936. Hand Potato Planter. (Servoir à patates.)



James W. Underhill, Pine Grove, Michigan, U.S.A., 10th February, 1897; 6 years. (Filed 21st January, 1897.)

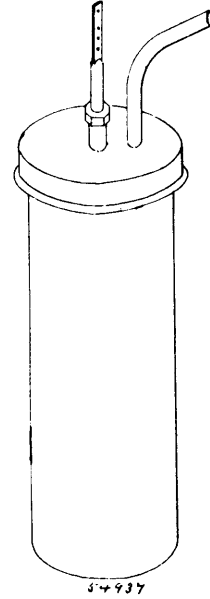
Claim.—1st. The combination, of the U body or spout portion, a point having its sides closed throughout its entire slanting portion leaving no opening at 10, the gate with inwardly turned edges and set in well from the outer side edges of the point, and the vertically-adjustable combined step and gauge, the same being located on one of the sides of the planter, the same having the vertical elongated slot, and bolts therein separated from each other and separated from each end of said slot, substantially as set forth.

No. 54,937. Railway Brake. (Frein de chemin de fer.)

William Henry Bird, St. Thomas, Ontario, Canada, 10th February, 1897; 6 years. (Filed 22nd January, 1897.)

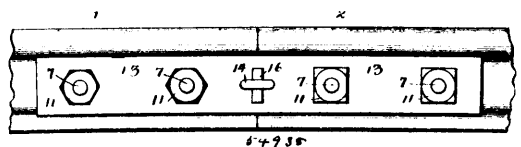
Claim.—1st. In a compressed air-brake system, the combination with a brake-actuating cylinder located on a car and provided with a working piston operatively connected with the brake-levers so as to apply the brakes when the piston is moved in one direction and release the same when it is moved in the opposite direction, of means for stopping the piston at a point intermediate the ends of the cylinder in position to release the brakes, means for establishing communication between the chambers of the cylinder on opposite sides of the piston when the latter is at the limit of its movement and the brakes released, a pipe leading from an air reservoir located on the train to said brake-actuating cylinder at one side of the piston working therein, and a valve controlling said pipe and adapted to admit air to the brake-actuating cylinder or permit the escape of air therefrom for the purpose of setting or releasing the brakes at will, substantially as described. 2nd. In a compressed air-brake system, a brake-actuating cylinder having its interior formed in two

diameters, so as to divide the cylinder into two chambers, a piston arranged to reciprocate in the larger chamber, the shoulder at the



junction of the greater and less diameters serving as a stop to limit the rearward movement of the piston, a port at the terminus of the smaller chamber affording communication between the two chambers of the cylinder on opposite sides of the piston, when the latter is at the limit of its rearward movement, and means for charging or exhausting the air at one side of the piston so as to cause the air at the opposite side of the piston to expand and move the piston, for the purpose of setting the brakes when the air is permitted to escape from the piston-cylinder, substantially as described. 3rd. In a compressed air-brake system, the combination of a series of brake-actuating cylinders located on the several cars composing a train, and each provided with a working piston, means for forming an air cushion at one side of the piston in said cylinders and for admitting or exhausting air at the opposite side thereof, means for establishing an equalization of pressure in the chambers of the cylinder on opposite sides of the piston when the latter is in its normal position, and a valve-controlled combined charging and escape pipe communicating with the brake-actuating cylinders at the side of the piston opposite the air cushion or confined air chamber, substantially as described. 4th. In a compressed air-brake system, the combination with a series of brake-actuating cylinders located on the several cars composing a train, each provided with a working piston, and means for permitting the passage of air past the piston when the latter is in its normal position, of an air charging and discharging pipe extending the length of the train, and affording communication between an air reservoir suitably located on the train and said cylinders at one side of the pistons therein, together with a valve controlling said pipe so that air may be permitted to escape from the brake cylinder at one side of the piston for the purpose of setting the brakes by the expansion of the air confined on the opposite side of the piston, or air admitted so as to restore the piston to its normal position and thereby release the brakes, substantially as described.

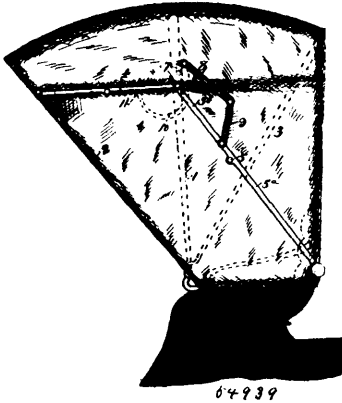
No. 54,938. Nut Lock. (Arrête-écrou.)



Dominick S. Leger, Isaac White, Frederick White, all of Waltham, Massachusetts, U.S.A., and Onésime S. Léger, Moncton, New Brunswick, Canada, 10th February, 1897; 6 years. (Filed 16th January, 1897.)

Claim.—1st. In a device of the character described, the combination with a longitudinally and laterally curved resilient nut lock plate provided with apertures, of an apertured nut lock, and means for adjustably securing the nut lock to the nut lock plate, substantially as specified. 2nd. In a device of the character described, the combination with a resilient nut lock plate provided with bolt apertures and longitudinally and laterally curved, of a nut lock provided with nut apertures and with a loop aperture, a loop projecting from the nut lock plate and passing through said aperture, and a wedge-shaped pin passing through said loop and designed to adjustably secure the nut lock plate and the nut lock, substantially as specified.

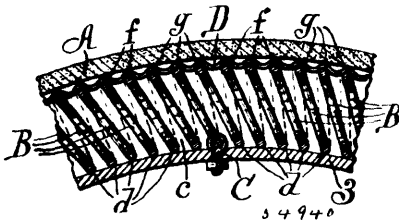
No. 54,939. Buggy-top Attachment.
(Attache pour couvertures de voiture.)



Annie E. Stone and Frank W. Kamman, both of Aaron, Indiana, U.S.A., 10th February, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—The combination with a buggy-top having a main brace comprising upper and lower jointed sections, of a rock-shaft mounted in bearing-eyes on the main rib of the buggy-top, said rock-shaft being extended outwardly through the side curtains, a crank-arm carried by the exposed end of the rock-shaft, a pitman connecting the extremity of said crank-arm with the upper section of said main brace contiguous to its joint, and a curved operating-lever attached to the rock-shaft in the plane of the ribs of the buggy-top and having its free end deflected inwardly to swing clear of the inner side of the main rib, substantially as described.

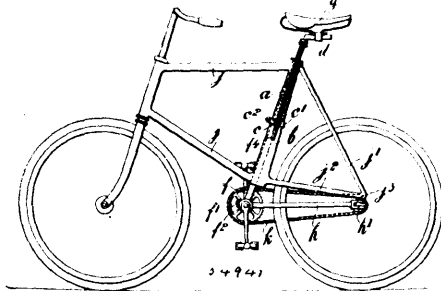
No. 54,940. Bicycle Tire. (Bandage de bicyclette.)



John Harry Hayes and Henry King Nash, both of De Ruyter, New York, U.S.A., 10th February, 1897; 6 years. (Filed 22nd October, 1896.)

Claim.—The combination, in a tire for vehicles, of a tubular-like or segment-shaped wrapper or shoe of an annular form longitudinally, constructed of elastic or resilient material, a continuous spirally-coiled spring of a diameter readily fitting the interior of the shoe, the shoe suitably secured to the rim of a wheel, and the spring connected to the rim by eye-bolts held in place by nuts bearing against the non-bearing face thereof, depressions in the tread of the spring lineal its periphery, and an annular band of corrugated form longitudinally tightly fitting the spring at its depressed portions and lockingly retaining the helices of the spring from longitudinal displacement at their treads, substantially as described.

No. 54,941. Velocipede. (Vélocipède.)

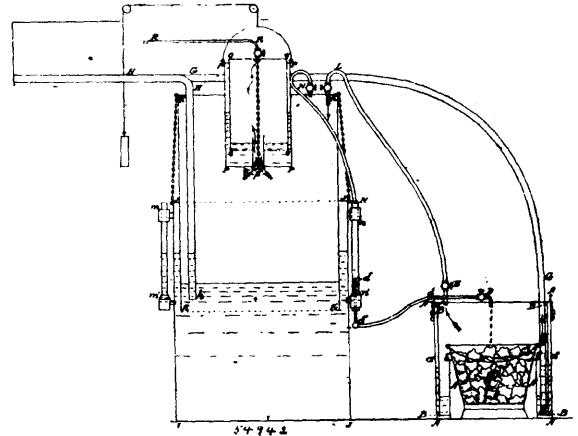


Elliott I. E. Barton, Wellington, New Zealand, 10th February, 1897; 6 years. (Filed 28th October, 1896.)

Claim.—1st. In velocipedes constructed with a diamond frame, a rod having a bearing spring on each side and carrying the seat at its upper and pedal bearings at its lower end in combination with radial

links connecting the pedal-bearing bracket to the axle, substantially as and for the purposes set forth herein. 2nd. In velocipedes, a rod passing through an oval pillar and having a bearing spring on each side and carrying a seat at its upper and pedal bearings at its lower end in combination with radial links connecting the pedal-bearing bracket to the axle, substantially as and for the purposes set forth herein. 3rd. In velocipedes, a rod passing through an oval pillar and having a bearing spring enclosed within such pillar, and carrying a seat at its upper and pedal bearings at its lower end in combination with radial links connecting the pedal-bearing bracket to the axle, substantially as and for the purposes set forth herein. 4th. In velocipedes, the combination with a rod passing through an oval pillar and carrying the seat at its upper and pedal bearings at its lower end, of a ball-bearing head at the upper part of such rod, substantially as and for the purposes set forth herein. 5th. The improvements in velocipedes, constructed, arranged and operating substantially as and for the purposes set forth herein.

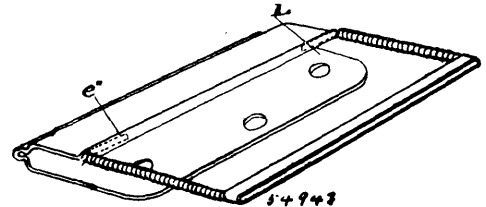
No. 54,942. Gas Generator. (Générateur à gaz.)



David Charles Morency, Lévis, Québec, Canada, 10 février 1897; 6 ans. (Déposé le 13 novembre 1896.)

Résumé.—1° L'utilisation de l'abaissement du niveau de l'eau, qui doit alimenter le générateur, au-dessous de l'orifice d'alimentation, par l'augmentation de pression du gaz lui-même, et cela se faisant automatiquement. 2° Des tubes de sûreté conduisant l'excès du gaz au dehors h, H, H, dans le gazomètre et g, G, G, dans le générateur tels que désignés pour les fins susmentionnées. 3° Le régulateur tel que construit et communiquant avec le gazomètre, lequel se compose du vase P, P, P, de la cloche Q, Q, Q, Q, du tube p, p, p¹¹, de l'obturateur conique p¹ suspendu au fond supérieur de la cloche et du tuyau de sortie R, R.

No. 54,943. Copying Book. (Livre à copier.)



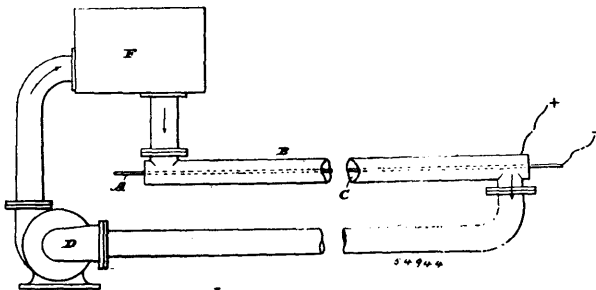
John J. Crable, assignee of William H. Rodden, both of Toronto, Ontario, Canada, 10th February, 1897; 6 years. (Filed 16th September, 1895.)

Claim.—1st. In a copying book, a holder or clip substantially U-shaped in cross section, having one limb bent inwards at an angle to itself, for a sufficient margin of its depth to form a mouth through which the book may be pressed into the cavity thereof, so that the free edge of such margin may catch against the binding stitches or ridge of the book to prevent its removal except edge-wise, and a sleeve or socket formed in the holder at or about the middle of its back, substantially as shewn and specified. 2nd. In a copying book a holder or clip substantially U-shaped in cross section, having one limb curled or folded inwardly to present an inwardly projecting free edge to catch against the binding stitches or ridge of the book when pressed into place in the holder, to prevent the removal of the book except edge-wise, and having a sleeve or socket formed on the holder at or about the middle of the back thereof, substantially as shewn and specified. 3rd. In a copying book, a resilient holder or clip substantially U-shaped in cross section, having one limb bent for a sufficient margin of its extent, and folded inwardly as on a pintle, so as to form a stiffening rib along its mouth, which rib forms a sleeve or socket to carry a swinging link, and having an inwardly projecting

edge free to catch against the binding stitches or ridge of the book, in combination with a swinging link consisting of a frame, in one side of which is adapted to enter the aforementioned sleeve or socket to connect it revolvably with the holder, and the other side of which is adapted to receive the transfer sheet, substantially as shown and specified. 4th. In a copying book, a resilient holder or clip substantially U-shaped in cross section, having one limb bent inwards at an acute angle to itself for a sufficient margin of its extent to form a mouth, and an inwardly slanting face, so arranged as to present its inwardly projecting edge to catch against the binding stitches or ridge of the book when pressed into the holder, to prevent its removal except edgewise, a sleeve or socket formed on the holder at or about the middle of its back, and a swinging link consisting of a frame, to one side of which is intended to be attached the transfer leaf, the opposite side arranged to enter the above mentioned sleeve or socket to revolvably connect such link to the holder, substantially as shown and specified. 5th. In a copying book, a resilient holder or clip substantially U-shaped in cross section, having one limb bent inwards at an acute angle to itself for a sufficient margin of its extent to form a mouth, and an inwardly projecting edge of the bent-in margin adapted to catch against the binding stitches or ridge of the book to prevent its removal except edgewise, a sleeve or socket formed integrally with the front of said holder, and a swinging link consisting of a frame, one side of which is intended to connect with and carry the transfer sheet, the opposite side being arranged to enter the above mentioned sleeve, and to move revolvably therein, substantially as shown and specified. 6th. In a copying book, a resilient holder or clip substantially U-shaped in cross section, having one limb for a sufficient margin of its extent curled or folded inwards as on a pintle to form a stiffening rib along its mouth, which rib also forms a sleeve or socket for use when required, and an inwardly slanting face for the bound side of the book to slide against on being pressed as a distending wedge into the mouth of the holder, until the free edge of the rib catches against the binding stitches or ridge of the book, a sleeve or socket formed integrally with the back of said holder to carry a swinging link, and a swinging link consisting of a substantially quadrangular frame intended to carry the transfer sheet at one side, while the opposite side is arranged to enter and revolvably move in the above mentioned sleeve or socket, substantially as shown and specified. 7th. In a copying book, a holder or clip substantially U-shaped in cross section having one limb curled or folded inwardly to form a sleeve along its mouth and present an inwardly slanting face for the book to slide against when pressed into place in the holder, and having a free edge to catch against the stitches or ridge of the book to prevent its removal except edgewise, substantially for the purpose set forth.

No. 54,944. Electro Deposition of Metal.

(Méthode d'ouvrage galvanoplastique.)



John Cameron Graham, London, England, 10th February, 1897; 6 years. (Filed 27th January, 1897.)

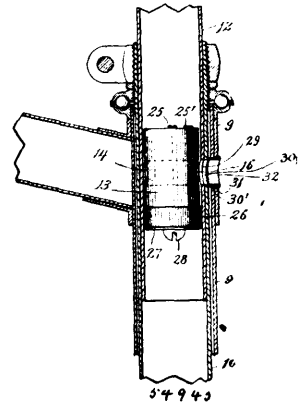
Claim.—1st. The method of depositing metals electrically by causing the electrolyte to flow rapidly through tubes or troughs or through jets over the whole surface of the cathode, substantially as described. 2nd. In the deposition of metals as claimed in the first claim, the use of shields over the edges of the cathode for the purpose of preventing irregular growths on the edges of the cathode, substantially as described. 3rd. The electrical deposition of metals in the form of wires, strips, sheets or tubes upon a matrix or conductor over which the electrolyte is caused to flow rapidly, substantially as described with reference to figures 1 to 6.

No. 54,945. Bicycle Lock. (Serrure de bicyclette.)

Maximilian Gessler, Milwaukee, Wisconsin, U.S.A., 10th February, 1897; 6 years. (Filed 2nd December, 1896.)

Claim.—1st. In a bicycle lock, the combination of the front outer stationary tubing of a bicycle frame provided at one side with a bolt opening, inner tubing fitting closely, revolvably in the outer stationary tubing, said inner tubing provided at one side with a bolt opening, and having a connection with the fork of the front wheel, the inner tubing adapted, when rotating a desired distance, to bring its bolt opening into register with the opening of the outer tubing, and to also turn the front wheel of the bicycle at an angle, a lock casing fitting within the inner tubing, and provided with a screw-threaded bolt opening registering with the opening of the inner tubing,

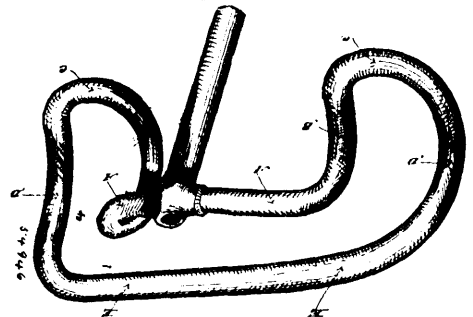
lock mechanism within the casing, a bolt within the bolt opening of the lock casing, said bolt provided with a feather engaging the



screw-threads of the bolt opening, and a key adapted, when the inner tubing is turned so as to bring the bolt openings into register, to be passed through said openings and to engage the bolt directly, said key when turned in one direction, adapted to draw the bolt from within outwardly through the registering openings, and to finally engage the opening of the stationary outer tubing, whereby the inner tubing, and the fork which carries the front wheel, are held against rotation; and when the key is turned in the opposite direction, the bolt is forced from without inwardly through the registering openings to its normal position within the casing, whereby the inner tubing and the front fork carried thereby are free to be turned. 2nd. In a bicycle lock, the combination of the front outer stationary tubing of a bicycle frame provided at one side with a bolt opening, inner tubing fitting closely, revolvably in the outer stationary tubing, said inner tubing provided at one side with a bolt opening, and having a connection with the fork of the front wheel, the inner tubing adapted, when rotated a desired distance, to bring its bolt opening into register with the opening of the outer tubing, and to also turn the front wheel of the bicycle at an angle, a lock casing fitting within the inner tubing, and provided with a screw-threaded bolt opening registering with the opening of the inner tubing, lock mechanism within the casing, a bolt within the bolt opening of the lock casing, said bolt provided with a feather engaging the screw-threads of the bolt opening, a key adapted, when the inner tubing is turned so as to bring the bolt openings into register, to be passed through said openings and to engage the bolt directly, said key when turned in one direction, adapted to draw the bolt from within outwardly through the registering openings, and to finally engage the opening of the stationary outer tubing, whereby the inner tubing and the fork which carries the front wheel are held against rotation; and when the key is turned in the opposite direction, the bolt is forced from without inwardly through the registering openings to its normal position within the casing, whereby the inner tubing and the front fork carried thereby are free to be turned, a disc of expansible material against one end of the lock casing, a flat plate arranged against the outer face of the expansible disc, and a screw passing through the plate, through the disc, and entering the end of the lock casing, said screw when turned in one direction, adapted to expand the disc, so as to cause its edge to bear tightly against the inner surface of the inner tubing, in order to hold the lock casing in position.

No. 54,946. Bicycle Handle Bar.

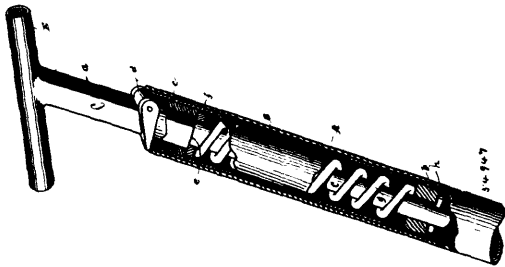
(Barre e poignée de bicyclettes.)



James Riggs, Toronto, Ontario, Canada, 10th February, 1897; 6 years. (Filed 11th December, 1896.)

Claim.—A bicycle handle-bar extending outwards from the centre post forming rests A, A, for the hands, forwardly and downwardly forming hand rests B, B, outwardly forming hand rests C, C, upwardly forming rests D, D, then over the top forming a high handle-bar E, E, substantially of the form shown and for the purpose hereinbefore set forth.

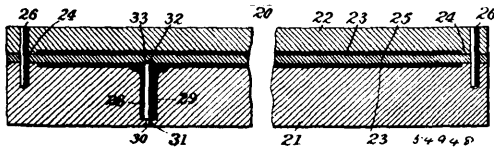
No. 54,947. Support for Bicycle Saddles.
(Support pour selles de bicycles.)



Joseph N. Smith, Detroit, Michigan, U.S.A., 10th February, 1897; 6 years. (Filed 11th December, 1896.)

Claim.—1st. In a support for bicycle saddles, the combination of the containing tube provided with upper and lower collars, a sliding rod provided with a square shank, a friction roll secured to the tube against which the square shank of the sliding rod is adapted to bear, and a spring engaging the rod within the tube, substantially as described. 2nd. The combination of a containing tube provided with upper and lower collars, an enclosed sliding rod adapted to sustain a saddle, the portion traversing the upper collar being flattened on one side, a roller friction bearing for the flattened side, and rotatably held in the upper collar, another collar fixed below the square portion of the shank and an elastic support for the shank bearing on the collar, substantially as described.

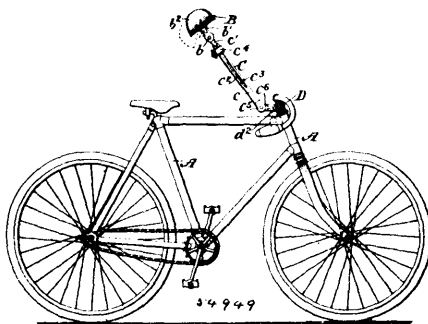
No. 54,948. Pneumatic Tire. (Bandage pneumatique.)



Henry James Doughty, Providence, Rhode Island, U.S.A., 10th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. An air tube for a pneumatic tire, consisting of a body portion and a valve nipple formed in one integral piece, said nipple extending laterally from the side of said body portion between its ends, substantially as described. 2nd. The within-described improvement in making rubber air tubes with nipples, for pneumatic tires, consisting in pressing together and uniting the edges of separate sheets or strips of rubber to form the body of the tube, and simultaneously forming thereon a valve nipple, and vulcanizing the whole, substantially as set forth. 3rd. The within-described improvement in making air tubes with nipples for pneumatic tires, consisting in bringing together under pressure the edges of two sheets of rubber upon opposite sides of a mandrel having one part corresponding to the interior of the tube, and another part to the interior of the nipple, substantially as described. 4th. A mould for air tubes and nipples of pneumatic tires, consisting of sections with recesses corresponding to the outer form of the tube and nipple, and a mandrel corresponding to the inner form of the tube and nipple, substantially as described.

No. 54,949. Attachments for Bicycles.
(Attache de bicycles.)

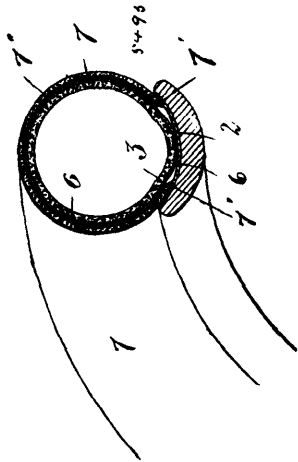


John Samen Voitek, New York, State of New York, U.S.A., 10th February, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—1st. An attachment for a bicycle, comprising a clamp to be secured to the bicycle frame, a rod connected to said clamp by a movable joint, and a support secured to the upper end of said rod for the body of the rider. 2nd. An attachment for a bicycle, comprising a clamp to be secured to the bicycle frame, a rod connected to said clamp by a movable joint, and a support secured to the upper

end of said rod for the body of the rider, said support consisting of two wings or parts secured to the rod by movable joints to fold together. 3rd. An attachment for a bicycle, comprising a clamp to be secured to the bicycle frame, a rod connected to said clamp by a movable joint, a block secured to the upper end of said rod by a movable joint and a support secured to said block.

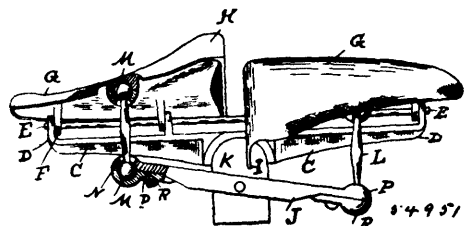
No. 54,950. Tire. (Bandage.)



The American Tire Company, Toronto, Ontario, Canada, assignee of George C. Moore, Worcester, Massachusetts, U.S.A., 11th February, 1897; 6 years. (Filed 2nd January, 1897.)

Claim.—1st. A tire comprising an inner air tube, a textile tube extending over said inner tube, said textile tube consisting of a self-shaped tube, composed of two unequal segments, the large segment having its greatest length at mid width, and its minimum length in its marginal portions at both sides of such length, and an endless shoe or cover which encloses said textile tube, said shoe or cover consisting of a self-shaped tube split longitudinally, and composed of two unequal longitudinal segments, the large segment having its greatest length at mid width, and its minimum length in its marginal portions at both sides of such length, and having free edges, which are inserted between the edges of the rim and the textile tube, to secure the tire to the rim, substantially as set forth. 2nd. A tire comprising an inner rubber air tube with sealed ends adapted to overlap each other, and one end extended and provided with an opening or hole through which the valve extends to connect said ends, a self-shaped textile jacket or tube for said inner tube, made separate therefrom, with the ends adapted to overlap each other, and provided at their inner portion with holes through which the valve extends to connect said ends, and a self-shaped endless shoe or cover to enclose said inner tube and jacket, said shoe or cover having a self-shaped textile lining, and free edges adapted to be inserted between the edges of the rim and the jacket of the inner tube, to secure the same to the rim, substantially as set forth.

No. 54,951. Bicycle Saddle. (Selle de bicycles.)

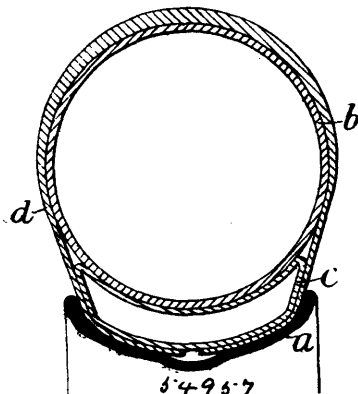


James H. Lewis, Detroit, Michigan, U.S.A., 11th February, 1897; 6 years. (Filed 13th January, 1897.)

Claim.—1st. In a bicycle saddle, two hinged saddle plates, and a connection between the two whereby as one plate is depressed the other is thereby raised. 2nd. In a bicycle, the combination of two hinged plates, a pivoted lever on the saddle support or frame, and connecting rods between the lever and the free ends of the saddle plates. 3rd. In a bicycle saddle, the combination of two saddle plates hinged at their rear edges near the rear of the support, a transversely arranged lever at the front of the support connecting rods between the ends of the lever and the plates, and universal joints between the connecting rods and the plates and lever. 4th. In a bicycle saddle, the combination of two saddle plates hinged at the rear to the support or frame, the transverse lever, the socketed slotted bearings in the ends of the lever, the bearing in the plates having slotted, socketed securing pins Q, and the connecting rods, having spherical ends and intermediate reduced portions.

telescoping axles connected therewith and surrounding the central shaft, and means actuated by the star wheel for imparting progressive movements in succession to the respective axles and their number wheels, substantially as set forth. 2nd. In a cyclometer, the combination with an outer case, a central shaft and operating star wheel thereon, of a series of number wheels and telescoping axles connected therewith and surrounding and superposed upon the central shaft with the ends of the axles in the same plane and provided with teeth that agree in number with the numbers upon the surface of the number wheels, and all but one having a notch at one tooth, and means substantially as shown and described, and operated by the star wheel and progressively actuating the telescoping axles and their number wheels, substantially as set forth. 3rd. In a cyclometer, the combination with an outer case, a central shaft and operating star wheel thereon, of a series of number wheels and telescoping axles connected therewith and surrounding and superposed upon the central shaft with the ends of the axles in the same plane and provided with teeth that agree in number with the numbers upon the surface of the number wheels, and all but one having a notch at one tooth, a multiplying ratchet and pawl plate side by side and loose upon the central shaft, a spring-actuated working pawl pivoted to the pawl plate and acting upon the multiplying ratchet, a cam plate pivoted to the pawl plate, a fulcrum pin for holding one end of the cam plate, and a crank pin on the central shaft for operating the cam plate by the movement of the star wheel, substantially as set forth. 4th. In a cyclometer, the combination with an outer case, a central shaft and operating star wheel thereon, of a series of number wheels and telescoping axles connected therewith and surrounding and superposed upon the central shaft with the ends of the axles in the same plane and provided with teeth that agree in number with the numbers upon the surface of the number wheels and all but one having a notch at one tooth, a multiplying ratchet *m* having nine surface teeth, and a notch and a pawl plate *o* adjacent thereto, and both loose upon the central shaft, a detaining pawl *5* for frictionally holding the multiplying ratchet, a spring-actuated working pawl *o*¹ pivoted to the pawl *o* and having a tooth point wide enough to extend over the surface of the multiplying ratchet and the teeth upon the ends of the telescoping axles, so as to engage the same progressively, a cam plate *r* pivoted at *8* to the pawl plate *o* and notched at its opposite end, a fulcrum pin *d*² in said notched end as a fixed point, a crank pin *l*¹ upon the central shaft received in a slot in the cam plate *r* and operating said cam plate with the progressive movement of the star wheel to actuate the mechanism of the cyclometer through the intervention of the multiplying ratchet *n* and the teeth of the telescoping axles, substantially as set forth. 5th. In a cyclometer, the combination with an outer case *a* carrying a sight glass, number wheels and telescoping axles connected therewith, and a central shaft within said axles, a star wheel and mechanism connected therewith for progressively operating the number wheels and their telescoping axles, of an inner spring case *b* within the outer case *a*, and a friction retaining collar *c* interposed between the inner spring case *b* and the number wheels for holding the same in position except as positively turned by the actuating mechanism of the cyclometer, substantially as set forth. 6th. In a registering device, the combination with an outer case and a central supporting shaft, of a series of number wheels and telescoping axles connected therewith and surrounding and superposed upon the central shaft with the ends of the axles in the same plane and provided with teeth that agree in number with the numbers upon the surfaces of the number wheels, and each having a notch at one tooth, and means, such as a pawl, for engaging said teeth and notches for actuating the number wheels progressively, substantially as specified.

No. 54,957. Wheel Tire. (Bandage de roue.)

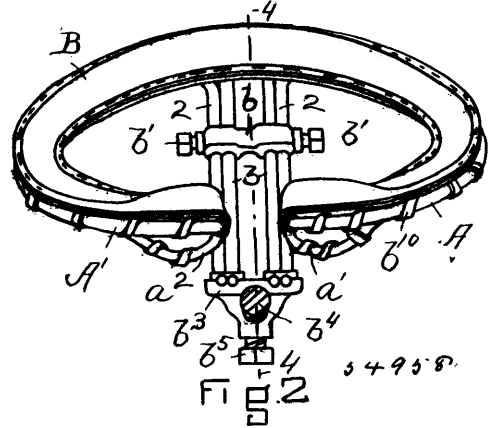


Arthur Alexander Furst, London, England, 11th February, 1897; 6 years. (Filed 16th January, 1897.)

Claim.—1st. A tire for wheels, consisting of a tubular ring or hoop of celluloid, xylonite, or other suitable hard but more or less yielding or resilient material and an inflatable bag or chamber enclosed within a cover of suitable material, substantially as de-

scribed and illustrated in figure 1 of the accompanying drawing. 2nd. The combination, substantially as hereinbefore described and illustrated in figure 2 of the accompanying drawing, of a wheel rim with a tire constructed as described and claimed in claim 1.

No. 54,958. Cycle Seat. (Siege de cycle.)

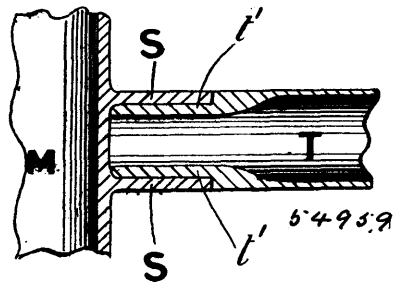


Otis Kimball Newell, Boston, Massachusetts, U.S.A., 11th February, 1897; 6 years. (Filed 19th January, 1897.)

Claim.—1st. A bicycle seat, consisting of a frame or rim adapted to be sat into by the rider and comprising a back portion downwardly inclined toward the front portion of the seat to embrace the buttocks of the rider, and the said front portion consisting of arms extended inwardly from the back portion and downwardly and rearwardly inclined toward the rear portion of the said seat, substantially as described. 2nd. A bicycle seat, consisting of an open frame or rim adapted to be sat into by the rider and comprising a back portion adapted to embrace the buttocks of the rider, and a front portion consisting of inwardly extended arms separated at their adjacent ends and inclined rearwardly toward the said back portion to form a substantially wide bearing or seat proper when the legs of the rider are extended over the front edges of the said arms, substantially as described. 3rd. A bicycle seat, comprising a metal rim composed of wire rods bent or shaped to form a back portion to embrace the buttocks of the rider, and to form inwardly-extended and rearwardly-inclined arms comprising the front portion, which forms the seat proper, a fastening device to secure the free ends of the wire rods which are extended below and under the seat to form supporting springs therefor, and a covering or pad secured to the metal rim. 4th. A bicycle seat, consisting of an open frame or rim adapted to be sat into by the rider and comprising a curved back portion *a* to embrace the buttocks of the rider and form a brace for the back of the rider, and arms *a*¹, *a*² extended inwardly and inclined rearwardly and downwardly from their upper edges to afford a substantially wide bearing for the seat bones or ischial tuberosities to rest upon, substantially as described. 5th. A bicycle seat, consisting of an open frame or rim adapted to be sat into by the rider and comprising a back portion adapted to embrace the buttocks of the rider, and a front portion consisting of inwardly extended arms inclined rearwardly toward the said back portion to form a substantially wide bearing or seat proper for the seat bones or ischial tuberosities to rest upon, substantially as described.

No. 54,959. Junctions of Cycle and other Frames.

(Joint pour cadres de cycle et autres.)

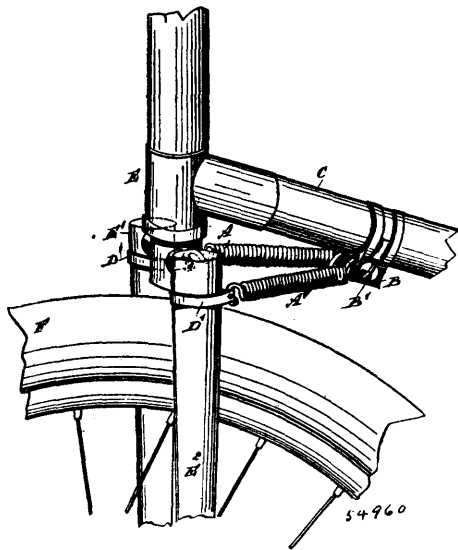


John Spencer, Herbert Spencer Smallman and Thomas Harris Spencer, all of Globe Tube Works, Wednesbury, Stafford, England, 11th February, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. The improvements in the junctions of cycle and other frames consisting of an ordinary parallel tube thickened at its end or ends in the manner as herein set forth so as to extend beyond the mouth of the socket and then tapered down to its normal thickness and united to the socket by such like means as brazing,

rusting or screwing in the manner substantially as herein set forth and as shown. 2nd. In making the junctions of tubes to their sockets the particular mode of thickening the end of the tube internally or externally, or both, and then making the junction with the socket by brazing, rusting, screwing or with pins or screw pins, substantially as herein set forth and shown. 3rd. The mode of making the junction of tubes with their sockets by thickening the end of the tube internally and afterwards shouldering down the said end so as to form a flush joint with the said socket and either with or without an external ferrule whether screwed or plain and either with or without an internal liner and either with or without pins or screws, substantially as set forth and shown. 4th. The mode of making the junctions of tubes with their sockets by thickening the end or ends of the tube internally or externally or both and then forming an annular groove in the end of the thickened part for the reception of the socket and so as to embrace the socket on both sides, and either with or without an external ferrule or internal lever or either or both, as set forth and shown. 5th. The mode of making the junctions of tubes with their sockets by thickening the ends of a tube externally, or both externally and internally, and screwing the same into the socket with a locking ferrule or ring to bind the parts together substantially as set forth and shown.

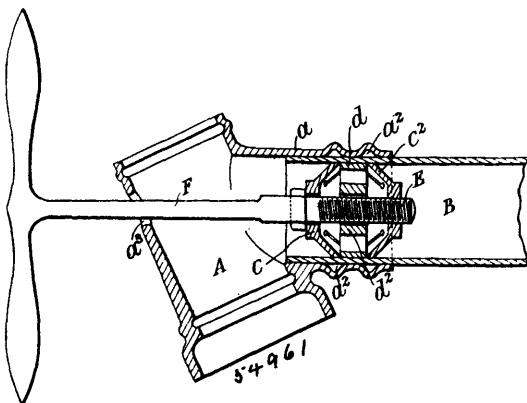
No. 54,960. Steering Device for Bicycles.
(Appareil à gouverner pour bicycles.)



Francis Mortimer, New York, State of New York, U.S.A., 11th February, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—A steering device of the class described, comprising springs and brackets or arms for connecting a part of the rigid frame with the steering post or fork for the front wheel, to keep the steering wheel normally in line with the driving wheel and permit the operator to turn the fork carrying the steering wheel, substantially as shown and described.

No. 54,961. Connecting Device for Bicycle Tube.
(Appareil pour joindre les tubes de bicycles.)

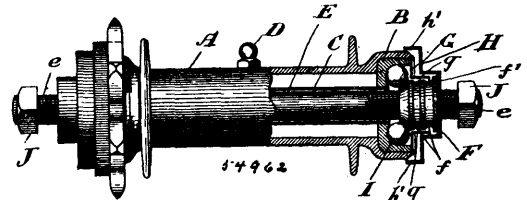


John George Inshaw, Birmingham, Warwick, England, 11th February, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. A device for securing cycle tubes in the lugs, fittings or parts to which they are to be secured, consisting of an expandible disc or discs or its or their equivalent, provided with means for

forcing them outwards to press the substance of the tube into recesses, in, or over, or under or both over and under, the parts to which they are to be secured, substantially as hereinbefore described. 2nd. In cycle tubes held in place by a disc or discs (or the equivalent) expanded so as to press the material of the tubes outwards, suitable orifices being made to allow of the insertion of a key, for effecting the expansion of the disc or discs or the like, substantially as hereinbefore described. 3rd. The combination of expandible discs or the like and distance pieces forming abutments therefor, and a screw for forcing the central parts of the discs or the like, together and their outer parts outwards, substantially as hereinbefore described and illustrated in the accompanying drawings. 4th. The combination of discs or their equivalents, distance pieces and screw with a filling piece and nut at the top for securing the tubular forks or like parts of cycles in the crown plates or parts to which they are to be affixed, substantially as hereinbefore described.

No. 54,962. Dust Guard for Cycle Bearings.
(Garde-poussière pour coussinets de bicycles.)



The Goud Bicycle Company, assignee of William Sanfield Wilson, all of Brantford, Ontario, Canada, 11th February, 1897; 6 years. (Filed 14th January, 1897.)

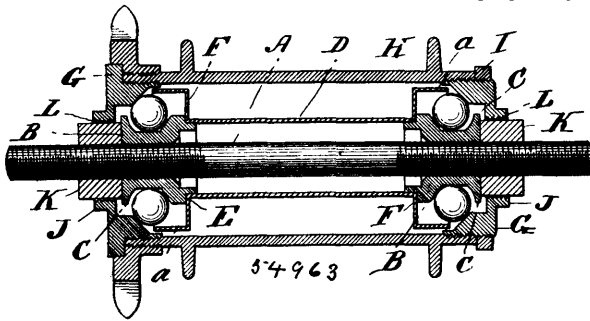
Claim.—1st. In a device of the class specified, the combination with the hub, of the threaded axle, the cone adjustable thereon, the inner washer fitted to the end of the hub, and the adjusting washer sleeved on the axle and adapted to engage with the head of the cone so as to cover the end of the hub and the inner washer, substantially as specified. 2nd. In a device of the class specified, the combination with the hub and cup for the ball bearings, of a threaded axle, a grooved cone threaded on the axle, an inner washer provided with a collar contiguous to and partially covering the grooved cone, and an adjusting washer sleeved on the axle so as to cover the end of the hub and the inner washer, and adapted to engage with the grooved cone, substantially as described and for the purpose specified. 3rd. In a device of the class specified, the combination of the hub A, the cap B, the balls I, the threaded axle E, the grooved cone F, the inner washer G, provided with collar g, the adjusting washer H, sleeved on the axle E, and removably secured to the cone F, and held in place by the fork end of the frame and the nut J, substantially as specified. 4th. In a device of the class specified, the combination of the hub A, the cap B, the balls I, the axle tube C, oil cup D, the threaded axle E, the grooved cone F, the inner washer G, with collar g, the adjusting washer H, sleeved on the axle and provided with milled flange h¹, and cap h¹¹, perforated at h, the stud f¹ formed on the cone F and designed to engage with the hole h in the adjusting washer, and the nut J, for clamping the fork end of the frame on the adjusting washer H, so as to hold it in place, substantially as specified. 5th. In a device of the class specified, the combination with the hub, of an axle, a cone on said axle, an inner washer fitted to the end of the hub, and a washer sleeved on the axle and adapted to cover the end of the hub and the inner washer, substantially as specified. 6th. In a device of the class specified, the combination with the hub, of an axle, a cone on said axle, an inner washer fitted to the end of the hub and provided with a collar to partially cover the cone, and a washer provided with a flange to overlap the end of the hub, and also adapted to cover the inner washer, substantially as specified.

No. 54,963. Ball-Bearing for Bicycles.
(Coussinet de bicycles.)

The Goud Bicycle Co., assignee of William Sanfield Wilson, both of Brantford, Ontario, Canada, 11th February, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. In a bearing, a hub having cups formed on or connected thereto, an axle, and two cones sleeved thereon, in combination with a tube connecting the cones so that they will be securely held in alignment, substantially as and for the purpose specified. 2nd. In a bearing, a hub having cups formed on or connected thereto, an axle, and two cones sleeved thereon and shouldered at their inner ends, in combination with a tube adapted to embrace a portion of each cone and butt against the said shoulders, substantially as and for the purpose specified. 3rd. In a bearing, a hub having a cup formed on or connected thereto, an axle, a cone sleeved on the axle and having a flange formed thereon, in combination with a retaining washer connected to the said cone and having a flange extending over the cone sufficiently far to prevent the balls rolling out between it and the first mentioned flange, substantially as and for the purpose specified. 4th. In a bearing, a hub having a cup connected therewith which has a boss formed thereon and a spiral groove cut in the inner surface of the boss, in combination with the axle and a

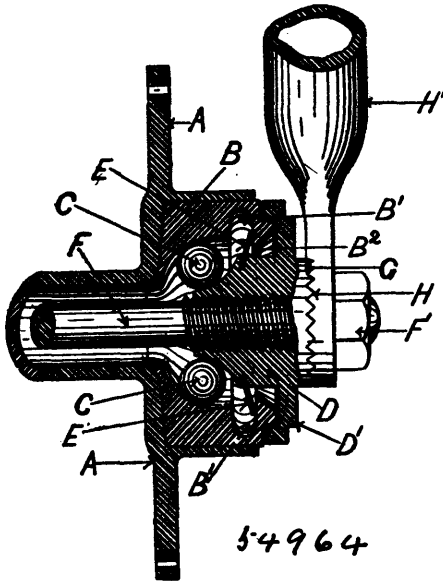
circular nut screwed thereon and adapted to fit close to the inner surface of the said boss, substantially as and for the purpose speci-



fied. 5th. In a bearing, the hub H, having the cups C connected thereto, in combination with the axle A, the cones B sleeved thereon, and provided with flanges C, the tube D embracing the portion of each cone and butting against a shoulder thereon, and the ball retaining washers F, provided with flanges a, and fitted over the ends of the tube D, substantially as and for the purpose specified. 6th. In a bearing, the hub H, having the cups G connected thereto, a boss J being formed in each of said cups, and a spiral groove L, cut in the inner surface of each boss, in combination with the axle A, the cones B sleeved thereon and provided with flanges C, the tube D, embracing the portion of each cone and butting against a shoulder E thereon, and the ball retaining washers F, provided with flanges a and fitted over the ends of the tube D, the circular nuts K screwed on the axle and adapted to fit close to the inner surfaces of the bosses on the cups, substantially as and for the purpose specified.

No. 54,964. Ball Bearing and Lubricator.

(Coussinet à roulettes et graisseur.)



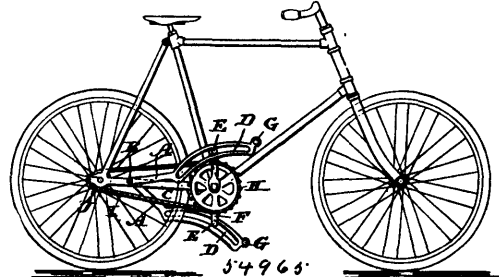
Schrolder's Ball Bearing Company, Sydney, New South Wales, Australia, assignee of Frederick William Schroeder, Newton, near Sydney, 11th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. In a ball bearing, the combination and arrangement with a race or way such as B, a set of balls such as C, and a spindle such as F having an adjustable cone such as D thereon, of a groove or depression or keep such as B¹, having a contracted mouth and an elastic or semi-flexible washer such as E adapted to pass through the contracted mouth of the keep and to reassert itself and bear against the overhang forming said contracted mouth, substantially as herein described and explained and as illustrated in the drawing. 2nd. In a ball bearing, the combination and arrangement with a race or way such as B, a set of balls such as C, and a spindle such as F having an adjustable cone such as D thereon, of the face of said cone having serrations thereon such as G, and the solid support such as H¹, having serrations such as H thereon, together with a nut such as F¹ on said spindle such as F for locking the serrations G and H together and thereby holding the bearing in adjustment, substantially as herein described and explained and as illustrated in the drawing. 3rd. In a ball bearing, the combination and arrangement with a revolving boss or hub having thereon a cone such as D, a set of balls such as C, and a spindle such as F, of a regulating or adjusting race or way having therein a lubricant keep such

as B¹, and a contracted mouth such as B², and means for locking said race or way to such spindle F, substantially as herein described and explained and as illustrated in the drawing. 4th. In a ball bearing, the combination and arrangement with the adjusting or moving part upon the fixed spindle, of serrations on the face or circumferentially upon a disc, or an annulus on the face and complementary serrations upon the face or circumferentially external or internal, of a disc or flange upon the rigid support, substantially as herein described and explained and as illustrated in the drawing. 5th. In a ball bearing, the combination and arrangement with a race or way such as B, having two concavities therein and two sets of balls such as C and C^x, a spindle such as F, a regulating cone such as J¹, said cone and said cap adapted to be locked to a rigid support, substantially as herein described and explained and illustrated in the drawing. 6th. In a ball bearing such as that set forth in the preceding (5th) claiming clause, the combination and arrangement with an adjusting cone such as D, and a cap or cover such as J, of serrations such as G and J, and corresponding serrations such H on a rigid support, together with a nut such as F¹, substantially as herein described and explained and as illustrated in the drawing. 7th. The combination and arrangement with a rigid spindle such as K, an oil race or way such as B adapted to be screwed into a rigid support such as L and to be locked on it, and a set of balls such as C, of a jamb nut such as M (forming with the head of the race or way such as B an oil keep such as B¹) with a contracted mouth such as M², and means such as holes M³ and B³ for adjusting said race or way such as B and jamming thereon said cover such as M, substantially as herein described and explained and as illustrated in the drawing. 8th. The combination and arrangement with a rigid spindle such as O, race or way such as B, set of balls such as C, oil keep such as B¹, contracted mouth such as B², elastic or semi-flexible washer such as E, adjusting cone such as D having a head such as D¹, of locking washer or keep such as S¹ having a D hole to fit over a flat such as O¹ on said spindle such as O, and having radial or circumferential serrations adapted to fit upon corresponding and complementary serrations upon the head such as D¹, substantially as herein described and explained and as illustrated in the drawing. 9th. The combination and arrangement with a rigid spindle such as O, revolving boss such as R, and ball bearings such as those set out in the preceding (8th) claiming clause, of a screwed oil keep such as Q, and port or way such as Q¹, substantially as herein described and explained and as illustrated in the drawing. 10th. In combination and arrangement with a ball bearing and a chain adjuster or solid support or grip of serrations such as G, or internal or external circumferential modifications of the same adapted to take into complementary serrations upon the adjusting part of said ball bearing, substantially as herein described and explained and as illustrated in the drawing.

No. 54,965. Bicycle Mechanism.

(Mécanisme pour bicycles.)



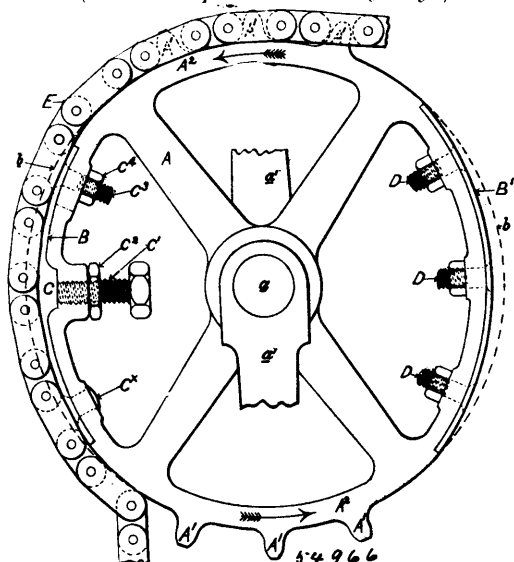
Frederick William Quinn, Sydney, New South Wales, Australia, and Frederick John Bird, Addison Road, Manly, Sydney, 11th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. In mechanism used for operating cycles and such like vehicles, a pair of pivoted levers, provided with either a straight or curved slot, with pedals at the ends thereof, so placed that the crank pins attached to the cranks shall traverse within the said slots in the manner described and shown. 2nd. In mechanism used for operating cycles and such like vehicles, a friction roller having concentric ball bearings, in combination with a crank pin traversing in the slot of a lever used for operating the same, as described and shown. 3rd. In mechanism used for operating cycles and such like vehicles, the combination of a pair of slotted levers, straight or curved, having pedals at the ends thereof to produce the desired leverage, with the operating cranks, crank pins, sprocket wheel, chain, and smaller sprocket wheel for operating the main driving wheel or wheels of such vehicles, as described and shown. 4th. In bicycles and such like vehicles driven with spur, mitre or bevel wheels, the combination, with such spur, mitre or bevel wheels of a pair of slotted levers, straight or curved, having pedals at the ends thereof, and traversed with concentric friction rollers attached to the crank pins of operating cranks, as described and shown and for the purposes set forth. 5th. In levers used for operating the driving gear of bicycles and such like vehicles, the V-shaped guide plates running in the groove of a rotary friction roller upon a crank

pin, to prevent lateral movement being imparted to such lever, and to minimise the friction thereof, as described and shown. 6th. The general combination and arrangement of the mechanical devices herein described and illustrated in the drawings, the whole forming an improved method of operating the driving wheels of cycles and such like vehicles.

No. 54,966. sprocket wheel for Chain Gearing.

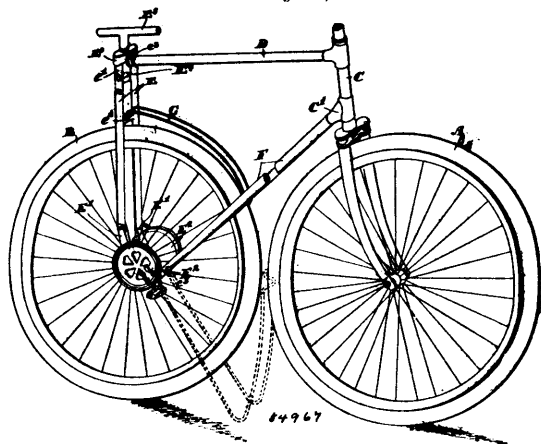
(Roue dentée pour chaînes à engrenage.)



James Alexander Walker, Folkestone, Lavender Bay, North Sydney, New South Wales, Australia, 11th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. An improved sprocket wheel for chain gearing specially useful for cycles, the essential features of which are groups of small numbers of sprockets or teeth on the circumference and compensators or devices for extending the length of the periphery between said groups of sprockets or teeth, substantially as herein described and explained. 2nd. The combination and arrangement with an axle or spindle driven by cranks or levers, of a gear chain and a sprocket wheel as claimed in the preceding (first) claiming clause in such a manner that the groups of sprockets or teeth will engage with the chain when said cranks or levers are at their neutral points or on their dead centres, substantially as herein described and explained. 3rd. In a sprocket wheel having groups of sprockets or teeth on its circumference, an adjustable compensator consisting of an elastic or flexible peripheral piece adapted to be bowed outwardly substantially as herein described and explained and as illustrated in the drawing. 4th. In a sprocket wheel having groups of sprockets or teeth on its circumferences, adjusting devices or compensator consisting of removable peripheral pieces adapted to be exchanged the one for the other to increase the length of the periphery between the groups of teeth, substantially as herein described and explained and as illustrated in the drawing.

No. 54,967. Bicycle. (Bicycle.)



William Jenkins, Cashel, Ontario, Canada, 11th, February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. In a bicycle, in combination, the front forked standard, the double rear standard, the cross head connecting the tops of

the standard, the socket in the cross head, the top reach extending from such socket to the socket in the front forked standard, the caps containing the driving gear, means for connecting the lower ends of the standards to the gear caps, the oblique socket attached to the front forked standard, the lower reach comprising the two semi-cylindrical tubes, the front ends of the flat faces of which abut and extend into the oblique socket and having the remaining portions of the lower double reach separated and means for connecting them to the caps in which the driving gear is contained, as and for the purpose specified. 2nd. In combination, the caps containing the gearing, the stems attached to the front of the caps, and the lower reach suitably secured on such stems, and the stems attached to the inner back portion of the caps, and the semi-cylindrical standards secured on same, all arranged as and for the purpose specified. 3rd. The combination, the caps, the rear stems and standards secured on same, and the rearwardly extending foot rests, as and for the purpose specified. 4th. In a bicycle, in combination, the driving wheel and axle, the gear cap suitably supported in the frame, the pinions on the end of the shaft, the ball-bearing cap secured to the inside of the gear cap, the ball-bearing rings screwed into such caps, and the internal rings screwed on the axle, and the balls forming the bearings between the rings, and the rings having internal bearings in the gear caps, all arranged as and for the purpose specified. 5th. In combination, the gear cap, the axle, the pinions on the end of the axle, the gear rings meshing with the gear pinions, the end discs J, the ring I³ screwed upon the peripheries of the disc, gear ring held so as to rotate with same, the outer rings I¹ and I² internally threaded and screwed into the internal periphery of the flange of the gear caps and held from rotating the same, the grooves and balls formed and located between the rings I, I², and I³, and a suitable pedal for impelling the disc J and gear ring to which it is attached, as and for the purpose specified. 6th. In combination, the gear caps and gear rings journalled in same, the axle, pinions on the axle, the bearing caps and ball bearings located in same upon which the axle rotates, and the top and bottom slotted lugs, bolts and ways designed for the lateral adjustment of the caps, as and for the purpose specified. 7th. In combination, the gear rings externally journalled on suitable bearings in the caps, the axle, the gear pinions, the discs secured to the gear ring, the bent lugs on the disc, the double arm crank having the inner end of one arm pivoted on the disc, and the inner end of the other end arm slotted, the lug extending through the slot in the arm, and the brake shoe secured to the outer end of the arm and designed to be brought to engage with the raised arm on the flange of the gear cap, as and for the purpose specified. 8th. In combination, the gear rings externally journalled on suitable bearings in the caps, the axle and gear pinions, the discs secured to the gear ring, the bent lugs on the disc, the double arm crank having the inner end of one arm pivoted on the disc, and the inner end of the other arm slotted, the lug extending through the slot in the arm, and the spring rubber cushion situated in the slot to the outside of the lug, and the brake shoe secured to the outer end of the arm and designed to be brought to engage with the raised rim on the flange of the gear cap, as and for the purpose specified. 9th. The combination, with the gear cap, lower reach and rear standard secured to same, of a cross bar above the wheel extending between the two members of the rear standard, a wire loop having a straight portion, the inner ends of which are pivotally affixed in the gear cap, and a curved portion having a bent end, and a spring hook on the cross bar designed to hold such end up, so as to form a mud guard, as and for the purpose specified. 10th. In combination, the lower reach formed in two portions, the wire loop having a straight portion pivotally connected within the lower end of the reach in the gear cap, the curved ends of the loop, the outer bent end of which is designed to grip the front wheel when straight, and the apexes of the angles formed between straight portions and curved portions of the wire loop being designed to rest upon the ground to support the bicycle, as and for the purpose specified. 11th. The combination with the pedal, driving gear and gear cap, of a cup attached to or forming part of the brake shoe attached to the pedal, a screw spindle secured in the cup and having the inner end threaded and extending through a corresponding hole at the inner of the brake shoe, and notches in the outer flush end of the spindle for the application of a wrench, as and for the purpose specified.

No. 54,968. Tire for Vehicles. (Bandage de véhicules.)

Thomas Bassford, St. Thomas, Ontario, Canada, 11th February, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. The combination in a spring tire, of strips or sections of spring steel provided with eyelets, with retaining wires passing through eyelet holes in the eyelets, substantially as and for the purpose hereinbefore set forth. 2nd. The combination in a tire for vehicles, with flexible strips or sections of spring steel, of retaining wires and an outer cover or shield, substantially as and for the purpose hereinbefore set forth. 3rd. The combination with flexible steel sections, of retaining wires and a retaining bolt, substantially as and for the purpose specified. 4th. Combination with the rim of a wheel, of flexible sections, a shield and retaining wires, substantially as and for the purpose hereinbefore set forth. 5th. In a tire for vehicle wheels, the combination of a series of flexible steels, having eyelets secured to the ends thereof and retaining wires passing through the said eyelets, with a shield or outer cover connected to

the steels, substantially as and for the purpose hereinbefore set forth. 6th. The combination in a vehicle wheel tire, of a series of flexible

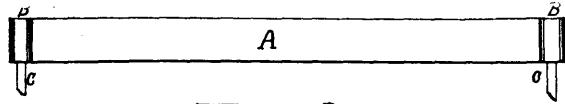


FIGURE I.

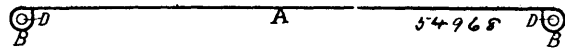
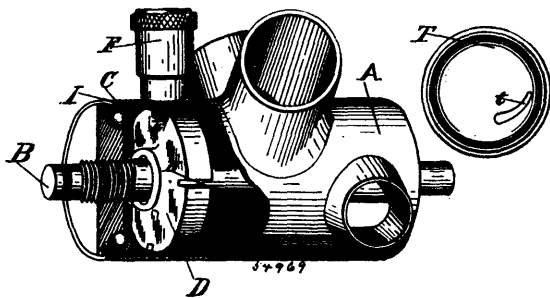


FIGURE II.

steels having retaining wires secured to the ends thereof, with a shield or outer cover, and a lining of canvas or other fabric, substantially as and for the purpose hereinbefore set forth. 7th. The combination in a vehicle wheel tire of the sections of flexible steels A, the eyelets or their equivalent B, B', and the retaining wires C, C', with the retaining bolt E, the rim F, and the shield or cover I, substantially as and for the purpose hereinbefore set forth.

No. 54,969. Bicycle Lock. (Serrure de bicycles.)



Frederick Adolphus Clarry, Toronto, Ontario, Canada, 12th February, 1897; 6 years. (Filed 1st February, 1897.)

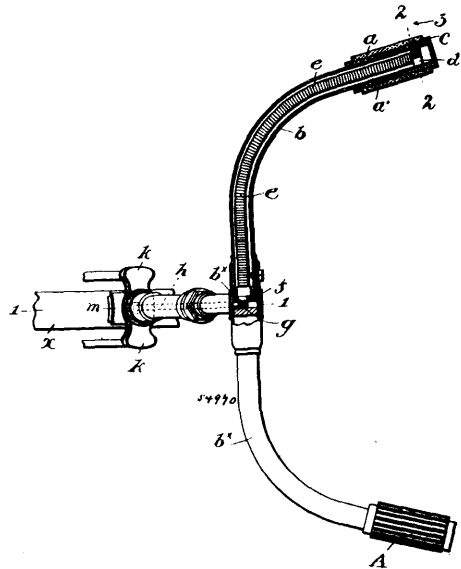
Claim.—1st. In a bicycle, a lock having a bolt adapted to engage the axle and prevent the revolution of the wheel, substantially as specified. 2nd. In a bicycle, the combination of an axle having a keeper, and a lock provided with a bolt adapted to engage the keeper and prevent the revolution of the wheel, substantially as specified. 3rd. In a bicycle, a lock having a bolt arranged to engage the axle and arrest the revolution of the wheel, substantially as specified. 4th. In a bicycle, the combination of an axle provided with a socket, a lock having a bolt adapted to engage the socket and prevent the revolution of the wheel, substantially as specified. 5th. In a bicycle, the combination of an axle having a socket, or a plurality of sockets, a lock provided with a bolt adapted to enter the socket and arrest the revolution of the wheel, and a trip-dog to engage the bolt and hold it in its withdrawn position, substantially as specified. 6th. In a bicycle, the combination of an axle having a socket, or a plurality of sockets, a lock provided with a bolt adapted to enter the socket and arrest the revolution of the wheel, a trip-dog to engage the bolt and hold it in its withdrawn position, and a series of tumblers to prevent the withdrawal of the bolt except by the operating key, substantially as specified. 7th. In a bicycle, the combination of an axle having a socket, or a plurality of sockets, a lock provided with a bolt adapted to enter the socket and arrest the revolution of the wheel, a trip-dog to engage the bolt and hold it in its withdrawn position, a series of tumblers to prevent the withdrawal of the bolt except by the operating key, and an elastic washer to hold the trip-dog in engagement with the bolt, substantially as specified. 8th. A bicycle lock consisting of a case, a movable bolt within the case, a trip-dog to hold the bolt in its withdrawn position, a spring to shoot the bolt when released from the trip-dog, a cap for the casing, a cam carried by the cap adapted to engage the trip-dog and release it from the bolt, substantially as specified. 9th. A bicycle lock consisting of a case, a movable bolt within the case, a trip-dog to hold the bolt in its withdrawn position, a spring to shoot the bolt when released from the trip-dog, a cap for the casing, a cam carried by the cap adapted to engage the trip-dog and release it from the bolt, an elastic washer to hold the trip-dog in engagement with the bolt, and tumblers to prevent the withdrawal of the bolt except on the insertion of the operating key, substantially as specified.

No. 54,970. Brake for Bicycles. (Frein de bicycles.)

William Gilbert, Kentish Town, London, England, 12th February, 1897; 6 years. (Filed 27th January, 1897.)

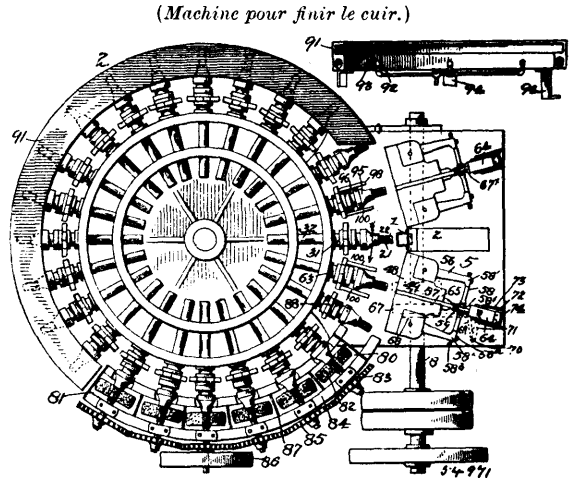
Claim.—1st. The combination with a curved and tubular handle bar such as *b* or the like for cycles, motor cars or other road vehicles, of a flexible shafting, such as *c* arranged inside said tube, means to connect one end of said flexible shafting to a handle by which to revolve said shafting and means connected to the other end of said shafting to operate the brake or other part of such vehicle, substan-

tially in the manner and for the purposes hereinbefore described. 2nd. The combination with the curved and tubular handle bar *b*,



suitably slotted, of the flexible shafting *c* arranged inside said tube, the movable handle *a*, suitably connected to one end of said flexible shafting *c*, the disc *f*, provided with crank pin *g*, suitably connected to the other end of the flexible shafting *c*, the descending rod *h*, pivotally connected at one end to the crank pin *g*, and at its lower end connected to the brake block *m*, substantially as described and for the purpose specified. 3rd. The combination with the curved and tubular handle bar *b*, slotted at *b'*, of the movable handle *a*, provided with stud *e* to engage with the flexible shafting *c*, arranged inside said tube, the disc *f*, provided with crank pin *g*, connected to the other end of the shafting *c*, the descending rod *h*, operating within the head *i*, and handle bar *b*, and pivotally connected at one end to the crank pin *g*, and at its lower end to the brake block *m* through the guide plate *j*, and the spring *n* arranged to normally keep the brake "off," substantially as described and specified.

No. 54,971. Machine for Finishing Leather. (Machine pour finir le cuir.)



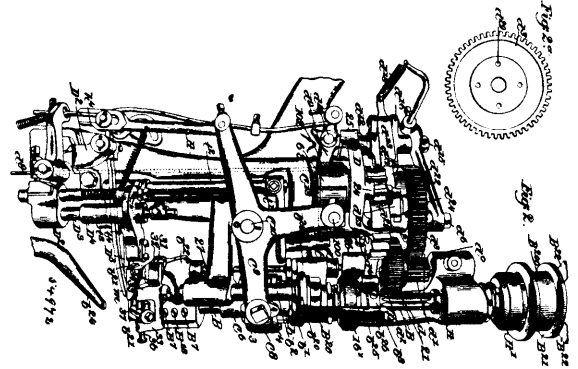
Ellis Spear and Frank Leander Middletown, Washington, Columbia, assignee of Alonzo Louis Sweet, Chicago, Illinois, all in the U.S.A.. 12th February, 1897; 6 years. (Filed 5th August, 1895.)

Claim.—1st. In combination, in a machine for finishing loops, means for shaping the slitted blanks, means for applying dressing thereto, means for drying the loop and means for giving the loop a final pressure independent of the first pressing means, substantially as described. 2nd. In combination, the carrier having loop sticks, the press arranged to act on the loop on the loop stick, means for applying dressing to the loop, driving means and a second press for giving a final pressure to the loop on the stick, independent of the first press, substantially as described. 3rd. In combination, the carrier having loop sticks to receive and spread the slitted blanks, a press, the finishing bath arranged in the path of the loop stick, a heating chamber through which the loop stick with the loop thereon moves, and a press for giving a final pressure to the loop, substan-

tially as described. 4th. In combination, the carrier having the loop sticks, a pressing mechanism for the loop, means for applying the finishing or dressing material to the loop after it is pressed and means for drying the loop in its pressed state with the dressing applied thereto, substantially as described. 5th. In combination, the carrier having loop sticks, means for pressing the loops, and means for applying the dressing material comprising the baths or tanks arranged below the path of the loop sticks and the brushes in the baths with operating means therefor to apply the dressing to the loops, substantially as described. 6th. In combination, the carrier, the loop sticks, and means for placing the loop onto the stick comprising the spring pusher plates arranged to move towards and from each other, means for holding the loop blanks in front of the plates, and in line with the point of the loop sticks, and means for moving the pusher plates and loop stick together, substantially as described. 7th. In combination, the loop stick having a wedge-shaped end, the yielding pusher, the magazine for feeding the blanks to the pusher and means for operating the pusher and loop stick together. 8th. In combination, the loop stick having a wedge-shaped end, the pusher comprising yielding members to press on the blanks, substantially as described. 9th. In combination, a carrier, the loop stick having a wedge-shaped end, the pusher comprising the yielding members and means for feeding the loop blanks thereto, substantially as described. 10th. In combination, the loop stick, the carrier therefor, a magazine, the yielding pusher plates and the yielding supporting plate for the lower blank, substantially as described. 11th. In combination, the loop stick, the carrier, a magazine, the pusher plates, and the yielding and pivoted supporting plate, substantially as described. 12th. In combination, the loop stick, its carrier, a magazine having an opening at its lower end for the exit of the loop blank of less width than that of the blank with retaining shoulders 15 at the sides of the opening, a support for the lower blank of the pile and the yielding pusher, substantially as described. 13th. In combination, the movable carrier having a series of radially movable loop sticks, a press, arranged adjacent to the path of the loop sticks and independent of the carrier and means for moving the loop stick with the loop longitudinally into and out of the press when it arrives before the same, substantially as described. 14th. In combination, the loop stick, the carrier, a press arranged independent of but adjacent to the path of the loop sticks on the carrier, said press comprising a frame, a series of dies movable radially therein, a series of levers projecting rearwardly and connected with the dies at their front ends and means engaging the rear ends of the levers for operating them, substantially as described. 15th. In combination, the loop stick, the carrier, and the press comprising the dies movable towards and from each other, the die levers pivoted to the frame and extending rearwardly, the sliding shaft or cam carrier, having the cam surfaces for operating the levers, and means for operating the sliding shaft, substantially as described. 16th. In combination, the loop stick, the die, the die blocks having notched upper ends with overhanging portions and the levers having pins or studs engaging said notched ends and projecting laterally beneath the overhanging portions, substantially as described. 17th. In combination, the movable carrier, the series of loop sticks, movable longitudinally therein, means for moving the loop sticks longitudinally at certain stations and means for positively holding the loop sticks against longitudinal movement between said stations, substantially as described. 18th. In combination, the movable carrier, the press, the series of longitudinally movable loop sticks on the carrier arranged to be brought in succession in front of the press and means for holding the loop stick against longitudinal movement consisting of the flange or rim to engage a longitudinally movable part of the loop stick, said rim being cut away in line with the press to allow the longitudinal movement of the loop stick, substantially as described. 19th. In combination, the movable carrier, the longitudinally movable loop sticks and means arranged at one or more stations to engage the loop stick to operate the same longitudinally, substantially as described. 20th. In combination, the movable carrier, the longitudinally movable loop stick comprising the arbor with the grooved head, the flange or rim engaging the said groove and cut away at intervals and the lever arranged to engage the grooved head with means for operating the lever, substantially as described. 21st. In combination, the carrier, the series of loop sticks arranged to rotate, means adjacent to the path of the loop sticks to operate on the loops carried thereby and means for rotating the loop sticks, substantially as described. 22nd. In combination, the carrier, the series of longitudinally movable loop sticks arranged to rotate, means for rotating said sticks, means for operating the same longitudinally and means for holding the loop sticks against rotary movement as they are moved longitudinally, substantially as described. 23rd. In combination, the carrier, the rotary loop sticks having star wheels, means arranged adjacent to the path of the loop stick for operating on the loop and the stationary rack engaging the star wheel to rotate the same with the loop stick, substantially as described. 24th. In combination, the carrier, the loop sticks, means arranged adjacent to the loop stick path to operate thereon, a vibrator lever having a pawl on one side, a stop pin, and a dog on the other side of the vibrator for controlling the stop pin, substantially as described. 25th. In combination, the carrier, the rotary loop sticks, the star wheels, the rack, means for operating the loop sticks longitudinally, and the guides engaging the star wheels to prevent rotary movements, and means for acting on the loop in the advanced position of the loop

stick, substantially as described. 26th. In combination, the carrier, the loop sticks having longitudinal movement, the pusher on the loop stick, and the dog retarding the pusher, substantially as described. 27th. In combination, the carrier, the loop sticks having longitudinal movements, the pusher on the loop stick, means for retarding the pusher, and means for placing a fresh blank on the loop stick and for returning the pusher to normal position, substantially as described. 28th. In combination, the loop stick, the series of dies, the reciprocating shaft, the cams thereon and adjustable connections between the same and dies radiating from the shaft, substantially as described. 29th. In combination, the loop stick, the series of dies, the cams, the sliding carrier therefor, and the die levers having adjustable portions to be operated by the sliding cams, said adjustable connections radiating from the sliding carrier, substantially as described.

No. 54,972. Machine for Inserting Screw Threaded Wire. (*Machine pour insérer le fil de fer à filet de vis.*)

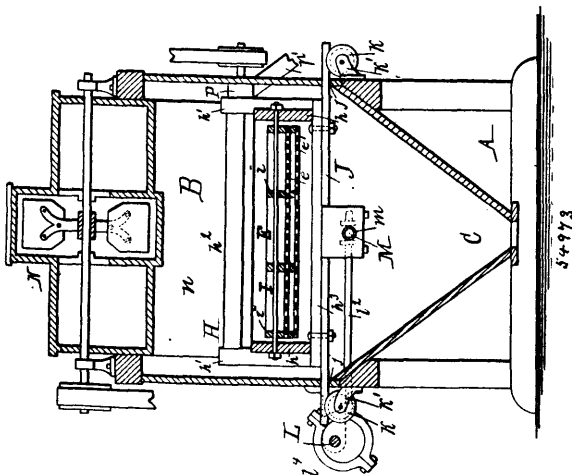


The Shoe Wire Grip Co., Montreal, Quebec, Canada, assignee of Stillman Williams Robinson, Columbus, Ohio, U.S.A., 12th February, 1897; 6 years. (Filed 10th November, 1896.)

Claim.—1st. In a machine for inserting screw-threaded wire, a rotatable spindle provided with a two-part head, feeding wheels mounted in said head, and a spring acting on one part of said head to hold its feed wheel in a yielding manner toward the feed wheel of the other part of said head, substantially as described. 2nd. The rotatable spindle, its feed wheels, and a shaft having a gear wheel and a ratchet wheel, combined with a wheel surrounding said shaft and provided with an annular pawl to engage said ratchet wheel, and a rack to move said shaft and pawl, substantially as described. 3rd. Means to support the work, a wire-carrying spindle supported near its upper end in a bearing, and provided below said bearing with a fixed collar, a bearing to sustain said collar, and a cross-head to sustain said bearing, combined with a lever, a strap or yoke movable thereby through a definite stroke to reciprocate said cross-head to lift said bearing and spindle, and means to rotate said spindle, substantially as described. 4th. In a machine for inserting screw-threaded wire, a rotatable spindle provided with wire feeding devices, and having an attached ring, a box supporting said ring, and a collar fixed to said spindle, combined with a cross-head having a seat to support said box loosely, substantially as described. 5th. The cutter-carrying levers having arms provided with toothed sectors, and a threaded block engaged by said sectors, combined with an upright shaft having a quick thread to engage said block, substantially as described. 6th. The cutter carrying levers having arms provided with toothed sectors, and a threaded block engaged by said sectors, combined with an upright shaft having a quick thread to engage said block, and having a second threaded part above it, a threaded box for said second threaded part, and means to rotate said shaft, substantially as described. 7th. The cutter carrying levers having arms provided with toothed sectors, and a threaded block engaged by said sectors, combined with an upright shaft having a quick thread to engage said block, and with means to raise said rod, substantially as described. 8th. The rotating spindle, wire feeding mechanism carried thereby, the sleeve C⁶, the strap or yoke embracing the said sleeve, and the lever C⁹, combined with the non-circular gears D and d¹, and devices intermediate the said gear D and the said lever to move the latter, substantially as described. 9th. The combination with the non-circular gears employed in feeding the wire, and the revolving spindle and intermediate actuating devices, of clutch mechanism, as described, for stopping and starting the nailing while the spindle continues its rotation, substantially as described. 10th. The combination with the rotating wire-carrying spindle and feed wheels, of bearings screwed into the head of the spindle and having deep chambers for the reception of the axles of the feed wheels, said bearings retaining oil and keeping the feed wheel axles lubricated, substantially as described. 11th. The wire-carrying spindle, the lever to actuate it, connections between said lever and said spindle, the eccentric strap connected to said lever, an adjustable two-part eccentric, a non-circular gear to which said eccentric is attached

and gearing between said non-circular gear and said spindle whereby the stroke of the spindle may be varied, substantially as described. 12th. The wire-carrying spindle, the box 16, the sleeve C^o, a strap or yoke to sustain said sleeve, wire-feeding mechanism supported on said spindle, and devices between said sleeve and said feed mechanism to actuate the latter, the lever C^o jointed to said strap or yoke, the cross-head B^{2o} to sustain said box, and the connected nose-plate, combined with devices to move said lever and impart to said sleeve a definite positive stroke, substantially as described. 13th. In a nailing machine for uniting soles to uppers with screw wire having threads of uniform pitch, a revolving spindle having wire feeding mechanism, non-circular gears, and mechanism actuated thereby to feed the wire at a uniform rate, and to then make the return stroke of the feeding mechanism quickly, substantially as described. 14th. The wire cutting-off chisels 38 sliding by one end in the nose plate, with the other end made fast adjustably in the chisel carriers 37, and operated by the elbow levers 33 engaging the rack block 31, the latter working on the steep threaded screw 27, as described. 15th. In a screw-wire nailing machine for fastening soles to uppers, the combination of the following instrumentalities, viz.: a work-supporting horn of constant height; a revolving wire-carrying spindle supported on a cross-head connected to a nose-piece and adapted to be arrested as the nose plate meets the stock on the horn, wire-feeding mechanism, a strap or yoke supporting said cross-head when the latter is not resting by its nose piece on the stock, mechanism connected with the said strap or yoke to impart to it a definite constant stroke, and devices between the strap or yoke and the said wire feeding mechanism, substantially as described. 16th. Means to support the work, a wire-carrying spindle, a connected ring, a bearing to support said ring, a cross-head to sustain said bearing, a strap or yoke to sustain said cross-head, a sleeve connected to said strap or yoke, and a lever to move said strap or yoke, combined with wire-feeding mechanism, and devices intermediate said strap or yoke and wire-feeding mechanism to actuate the latter more or less during the descent of said strap or yoke according to the thickness of the stock, substantially as described. 17th. The rotating wire conveying spindle and its attached ring, the box 16, the strap C⁸, its attaching lever, the two part ring 2, 4, and the buffer ring combined with the cross-head to sustain said box and spindle, substantially as described. 18th. The spindle, its pivoted member B⁸ having a screw hole and the spring a¹, combined with the screw a² extended through said spring and having a shoulder to engage the spring, substantially as described. 19th. The gear d³, the gear D and the gear d⁴ provided with a sliding pin and mounted with relation to gear d³, combined with a releasing device and means to move it to control the said pin, substantially as described. 20th. The gear D having a hub, an eccentric ring surrounding said hub, and an eccentric strap surrounding said ring combined with a pin to hold said ring in one of two positions on said hub, substantially as described. 21st. The spindle and its attached pulley having a flaring opening at its upper side, combined with the covering plate extending across the upper side of the coil of wire, and devices to connect portions of said covering plate to the said pulley, said parts being arranged to present the open centre of the coil of wire about the wire passage in the spindle, substantially as described. 22nd. The spindle and its attached pulley having a flaring opening at its upper side, combined with a wire-holder having upper and lower annular retaining plates to hold the wire and connected to the said pulley, and to present the open centre of the coil of wire about the passage in the spindle, substantially as described.

No. 54,973. Separating Machine. (Séparateur.)

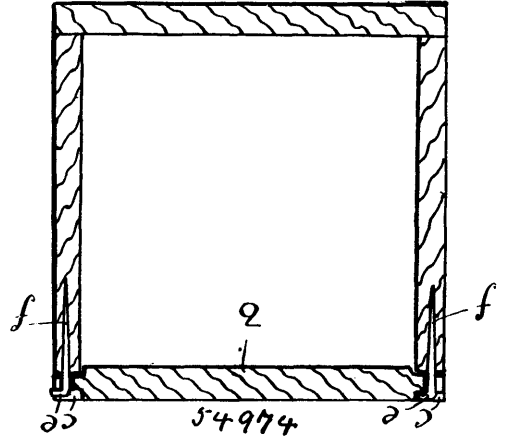


Richard John Olivey, Buffalo, New York, U.S.A., 12th February, 1897; 6 years. (Filed 4th November, 1896.)

Claim.—In a sifting machine, the combination with an inclined sieve, of a shaking frame having transverse rectilinear ways on which said sieve is loosely mounted, and on which it is capable

of a limited transverse rectilinear movement within said shaking frame, suitable mechanism for imparting a rectilinear transverse reciprocating movement to said shaking frame, means for feeding the material upon the upper portion of the inclined sleeve, and suitable means for delivering the material which has passed through the sieve and the material which tails off, whereby the material in flowing downwardly over the inclined sieve is subjected to the long transverse rectilinear movement of the main frame, and at the same time to the short transverse rectilinear movement of the screen frame, both movements taking place horizontally in a line transverse to the inclination of the sieve, substantially as set forth.

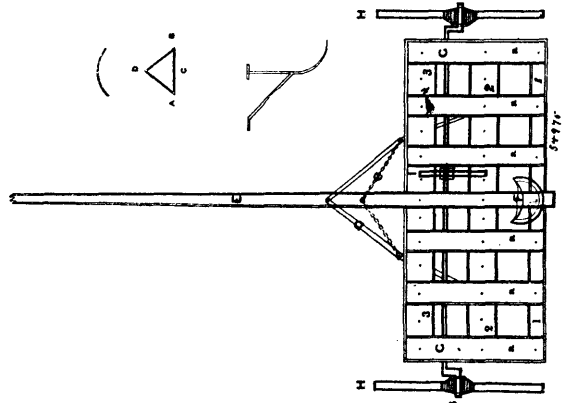
No. 54,974. Box. (Boîte.)



David Murdock Macpherson, Lancaster, Ontario, Canada, 12th February, 1897; 6 years. (Filed 7th October, 1896.)

Claim.—1st. A box having a detachable cover with notches formed in its side edges and rotatable holdfasts set in the body of the box, projecting from the upper edge thereof through said notches and having their ends off-set to engage said cover, for the purpose set forth. 2nd. A box having a detachable cover with notches formed in its edges, and sunken shoulders bordering such notches, and rotatable holdfasts set in the body of the box, projecting from the upper edge thereof through said notches and having their ends off-set to engage said shoulders, for the purpose set forth. 3rd. A box having a detachable cover *b* with scarfs *d*, shoulders *c*, and notches *g*, therein, and a body the upper edge of which is provided with rotatable holdfasts *f*, having off-set portions *e* to engage said shoulders, substantially as shown and described. 4th. A box having the surfaces adjoining the corner joints thereof recessed, and metal protecting strips bent over such joints and their edges counter-sunk in said recesses, for the purpose set forth. 5th. A box having the surfaces adjoining the corner joints thereof, recessed as at *m*, and the metal protecting slips *h* bent over such joints, extending the full length of same, and secured by nails passing alternately at right angles to each other lengthwise into the edges of the sides of the box, substantially as and for the purpose set forth.

No. 54,975. Agricultural Machine for Slaying and Destroying Weeds. (Scarificateur.)



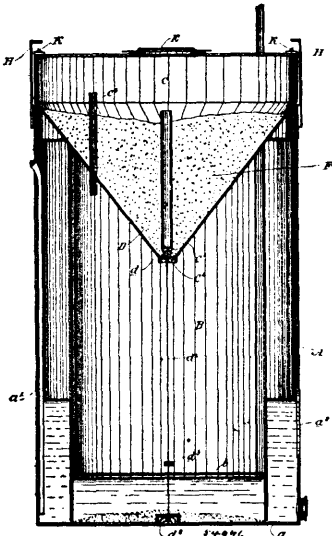
John Adna McDonald, Moose Jaw, Assiniboia, North-West Territories, 12th February, 1897; 6 years. (Filed 29th September, 1896.)

Claim.—1st. The combination of the knives or cutters, figure 3 A, B, C, D, and figure 4, showing the curvature for self-clearing or cleaning, and figure 2, the foot-holder to receive the knife or cutter,

and B, the steel axle or shaft for raising and lowering the knives or cutters, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the knives or cutters, figure 3 A, B, C, D, and the foot-guard or holder, figure 2 and B, the steel axle or shaft with crank for raising and lowering the knives or cutters, substantially as and for the purpose hereinbefore set forth.

No. 54,976. Acetylene Generator.

(Générateur acétylène.)



Charles Philippe Choquette and Antoine Moïse Morin, both of St. Hyacinthe, Quebec, Canada, 12th February, 1897; 6 years. (Filed 8th June, 1896.)

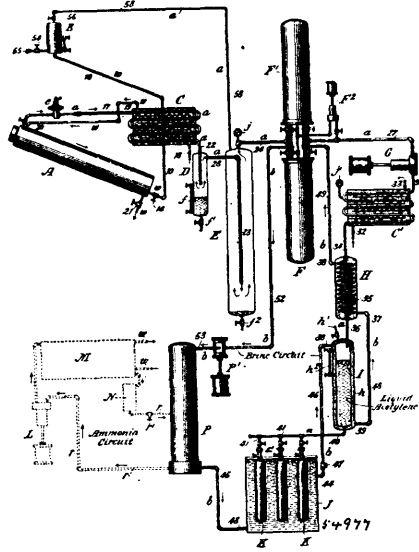
Claim.—1st. In an acetylene generator, the use of pulverized or granulated carbide of calcium to produce acetylene, substantially as described and for the purposes set forth. 2nd. An acetylene generator having an inside tank or holder whose top is formed by means of a tank or chamber to contain the pulverized or granulated carbide of calcium, and having a funnel-shaped bottom provided with an opening at its lower extremity, means for introducing the carbide of calcium into the funnel-shaped chamber, means for the escape of the gas to the point of consumption, and means to guide the inward tank or holder into the outward tank, substantially as described and for the purposes set forth. 3rd. In an acetylene generator, the combination of an outward tank to contain water in the bottom, means for introducing this water, a small rod *d*¹ surmounted by a larger rod or stopper *D*, having its point of junction with the rod *d*¹ conical in shape, means for regulating the length of the whole, and secured to its bottom, and means for regulating the amount of rise of the inner tank, with an inward tank or holder having its top formed by means of a tank or chamber to contain the pulverized or granulated carbide of calcium, and having a funnel-shaped bottom provided with an opening at its lower extremity, of just sufficient size to freely slide over the rod or stopper *D*, means of introducing the carbide of calcium into the funnel-shaped chamber, means for the escape of the gas to the point of consumption, and means to guide the inward tank or holder into the outward tank, substantially as described and for the purpose set forth.

No. 54,977. Process and Apparatus for Generating and Liquefying Acetylene. (Procédé et appareil pour générer et liquéfier l'acétylène.)

Arthur Cleveland Fraser, Brooklyn, New York, U.S.A., 12th February, 1897; 6 years. (Filed 28th March, 1896.)

Claim.—1st. The process which consists in combining water and carbide, thereby generating acetylene, cooling the generated gas, and then raising its pressure by mechanical compression sufficiently to liquefy it. 2nd. The process which consists in combining water and carbide, thereby generating acetylene, cooling the generated gas, then raising its pressure by mechanical compression, and then cooling it sufficiently to liquefy it at its increased pressure. 3rd. The process which consists in combining water and carbide, thereby generating acetylene, cooling the generated gas, separating the aqueous vapour which is thereby condensed, and then raising the pressure of the gas by mechanical compression sufficiently to liquefy it. 4th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene at a pressure less than its liquefying pressure for a given temperature, cooling it sufficiently to liquefy it at its generating pressure, then compressing it to its liquefying pressure for said temperature, and finally cooling it to said temperature, to liquefy it. 5th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, cooling the gas to condense any

aqueous vapour, separating such condensation, subsequently raising the pressure of the gas by mechanical compression, and then cooling



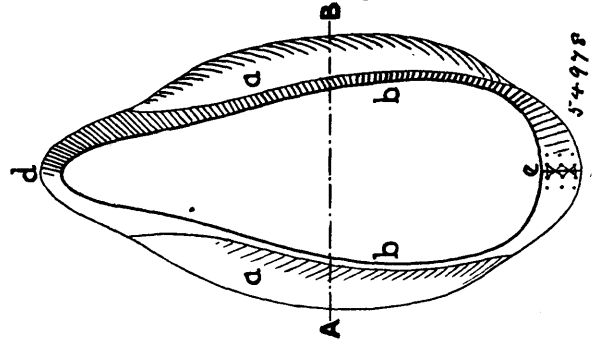
it sufficiently to liquefy it at its increased pressure. 6th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, cooling the gas, raising its pressure by mechanical compression, and then cooling it by refrigeration sufficiently to liquefy it, whereby the necessity of generating the gas under high pressure is avoided. 7th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, conducting this operation at a rate so slow as to limit the pressure to twenty-one atmospheres, cooling the gas, increasing the pressure of the gas by mechanical compression, and finally cooling it by refrigeration to below zero centigrade, to liquefy the acetylene. 8th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, cooling the gas sufficiently to condense but not congeal any aqueous vapour, separating such condensation, then refrigerating the gas to separate by congelation any remnant of aqueous vapour, then increasing the pressure of the gas by mechanical compression, and again cooling the gas sufficiently to liquefy it at its increased pressure. 9th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, conducting this operation at a rate so slow as to limit the pressure to an amount less than the liquefying pressure for a given temperature, cooling the gas sufficiently to condense any aqueous vapour, separating such condensation, then increasing the pressure of the gas by mechanical compression to its liquefying pressure at said given temperature, then cooling the liquefied gas to just above its liquefying temperature, and finally refrigerating the compressed gas to or below said given temperature to liquefy it. 10th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, cooling the gas to above its liquefying temperature for said pressure, then increasing the pressure of the gas and again cooling it sufficiently to liquefy it at its increased pressure, whereby the acetylene is liquefied, while oxygen, hydrogen, or other gases mixed with it and which liquefy less readily are not liquefied, receiving the acetylene and such gases in a chamber, and blowing off the non-liquefied gases from the upper part of said chamber while maintaining sufficient pressure therein to prevent the revaporization of the acetylene. 11th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene gas under pressure, separating aqueous vapour from said gas, cooling said gas by refrigeration until at the pressure imparted to it it liquefies, receiving the liquid acetylene in a chamber in the upper portion of which are collected any foreign gases admixed with the acetylene, and which are non-liquefiable at the liquefying temperature of the acetylene, and separating said gases by blowing them off from the upper part of said chamber while maintaining sufficient pressure to prevent the revaporization of the liquid acetylene. 12th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, suspending the generation by separating the water and carbide whenever the pressure exceeds a predetermined pressure, cooling said gas, and finally liquefying it. 13th. The process which consists in combining water and carbide in a closed chamber, thereby generating acetylene under pressure, permitting the escape of said gas from said chamber to a cooler so long as it does not exceed a predetermined pressure, cooling said gas at said pressure, and finally liquefying it, suspending or retarding the escape of gas from said chamber whenever its pressure exceeds said predetermined pressure, whereby the gas of a higher pressure is confined in the generating chamber, and suspending or retarding the generation of gas when-

ever the pressure in said chamber exceeds a predetermined margin of excess over said predetermined pressure. 14th. The process of generating acetylene and liquefying the same for storage in receiving cylinders, which consists in immersing the receiving cylinder in a refrigerating liquid, generating acetylene gas under pressure by bringing water and carbide into contact in a closed chamber, conducting the gas thus generated under pressure into contact with refrigerating surfaces to liquefy it, and bringing the liquefied acetylene while thus refrigerated and under pressure into communication with the interior of said refrigerated cylinder, whereby the liquid acetylene flows into said cylinder, and the acetylene gas originally contained in said cylinder is liquefied. 15th. An apparatus for generating and liquefying acetylene, comprising a generator, means for introducing water thereto, an acetylene outlet passage therefrom leading to a compressor, a cooler for cooling the gas flowing through said passage, the said compressor, and a liquefier for cooling the gas delivered from said compressor. 16th. The combination of an acetylene generator, a cooler, a condensation water receiver, a refrigerating cooler, a compressor, and a liquefying cooler with connecting pipes. 17th. The combination of an acetylene generator, a condensing cooler, a condensation receiver, a refrigerating cooler, a compressor, a refrigerating liquefier, and connecting pipes, with a refrigerating machine, the brine circuit of which is connected to said refrigerating cooler and liquefier. 18th. The combination of an acetylene generator, a refrigerating cooler, a compressor, a refrigerating liquefier, and connecting pipes, with a refrigerating machine, the cold brine circuit of which is connected to said refrigerating cooler and liquefier. 19th. The combination of an acetylene generator, a refrigerating liquefier, an acetylene passage leading from the former to the latter, and a refrigerating machine with the cold brine circuit thereof connected to and traversing said refrigerating liquefier. 20th. The combination of an acetylene generator, a condensing cooler, a condensation receiver, a compressor, a refrigerating liquefier, and a liquid acetylene receiver, with connecting pipes, and a refrigerating machine with its cold brine circuit connected with and traversing said refrigerating liquefier. 21st. The combination of an acetylene generator, a cooler, a compressor, a secondary cooler for the compressed gas, a refrigerating liquefier, and connecting pipes, with a refrigerating machine with its brine circuit connected to and traversing said liquefier. 22nd. In an acetylene apparatus, a dehydrator consisting of a refrigerating cooler through which the gas is circulated, constructed with means for opening it to expose the cold surfaces over which the gas passes, in order to permit of removing the congealed moisture therefrom, combined with a refrigerating machine, the cold circuit of which traverses said cooler. 23rd. In an acetylene apparatus, two dehydrators arranged for alternate operation, with valves for connecting the acetylene inlet and outlet pipes with either dehydrator and shutting them off from the other, with a valved pipe connecting said dehydrators, and a pump adapted to draw gas from either dehydrator through said pipe and pump it into the acetylene circuit, whereby in changing from one dehydrator to the other their pressures may be equalized through said connecting pipe, and the remaining gas in the dehydrator which is thrown out of service may be pumped out and commingled with the gas flowing through the other dehydrator. 24th. In an acetylene apparatus, a refrigerating dehydrator F consisting of a stationary head c with acetylene inlet and outlet pipes thereto, and with cold brine inlet and outlet pipes connected thereto, hollow partitions g^2, g^3 , mounted on said head connected with said brine inlet and outlet pipes and with each other to form a continuous brine passage through them, and a removable shell g^1 , the whole constructed to form a circuitous passage within said shell between and around said hollow partitions for the circulation of acetylene from the inlet pipe connecting the cold surfaces of these partitions to this outlet pipe. 25th. In an acetylene generating apparatus, the combination of a generator having a water inlet at its lower end and a gas outlet at its upper end, a source of water at predetermined pressure connected with said water inlet, a pressure reducing valve governing said outlet, and a discharge pipe for gas leading from said valve, whereby when said generator is charged with carbide and water admitted acetylene is generated and continues to flow out as the pressure in said outlet pipe beyond said valve exceeds the pressure to which said valve is set, whereupon said valve closes or stops the flow to generate an increased pressure within the generator, which arrests the inflow of water and retards the generation of gas. 26th. In an acetylene generating apparatus, the combination of a generator having a water inlet at its lower end and a gas outlet at its upper end, an elevated water reservoir connected with said water inlet pipe, a pressure reducing valve governing said gas outlet, a discharge pipe for gas leading from said valve, and a pressure equalizing pipe connecting the top of said water reservoir with the gas outlet pipe, whereby when the pressure in said gas outlet pipe exceeds the pressure to which said valve is set, the latter closes and confines the pressure of gas in the generator, and when said confined pressure equals the head due to the elevation of said reservoir it arrests the inflow of water to the generator. 27th. In an acetylene generating apparatus, a generator A consisting of an inclined cylindrical shell having a valved water inlet pipe connected to its lower end, a valved gas outlet pipe connected to its upper end and a removable cap or cover for closing its upper end, and a removable tray A² fitting within said shell for containing the original charge of carbide or the residual oxide of lime, whereby on charging and closing said generator and admitting water at said lower inlet the

carbide is progressively decomposed from the lower to the upper end of the chamber, and finally the chamber may be entirely filled with the residual oxide and water, and by closing the water inlet and gas outlet valves and removing said cap the generator may be opened for recharging without the necessity of pumping it out, and without loss of gas. 28th. In an acetylene generating apparatus, the combination with the generator of an elevated water reservoir B provided with a water outlet pipe 10 from its bottom, a pressure equalizing pipe 58 communicating with its top, a float-valve i for closing said latter communication, a valved pipe 54, and a water pump Q for forcing water into said reservoir through said latter pipe, whereby the gas in said reservoir is expelled from said valve i and pipe 58 until by the raising of the water the float valve is closed and escape of water through the pressure equalizing pipe is prevented.

No. 54,978. False Collar for Horses.

(*Faux-collier pour cheval.*)

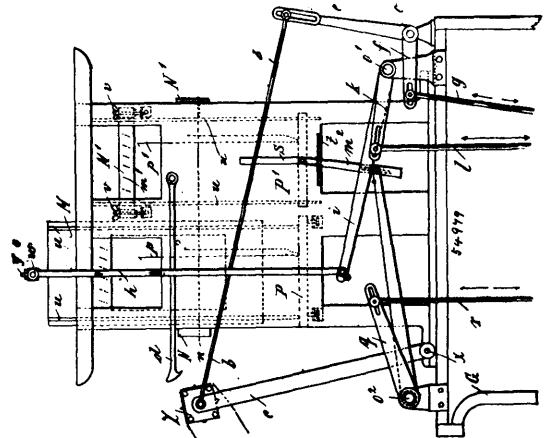


Thomas Clements, Launceston, in Tasmania, 12th February, 1897; 6 years. (Filed 29th October, 1896.)

Claim.—A false collar for horses, for use as a collar lining or sweat pad, consisting of two separate air-tight bags permanently connected at one end and adjustably connected at the other, adapted to fit around a horse's neck, and so shaped as to have the rear edges well rounded when inflated, and the front edges tapered off to feather edges, and each provided with a valve and adapted to be wholly or partially inflated with air or water, substantially as set forth.

No. 54,979. Double Acting Jacquard.

(*Machine jacquard à double effet.*)

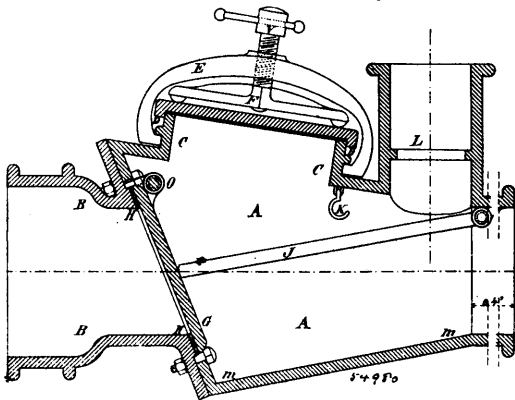


Kunstwerber, Claviez & Co., G. M. B. H., assignee of Emil Claviez, both of Leipzig, Germany, 12th February, 1897; 6 years. (Filed 3rd March, 1896.)

Claim.—A double acting Jacquard machine for the production of figured double plush, canderplush of any desired height of pile, characterized by the arrangement of a fixed and of a movable and adjustable plate or wire tray P and P¹, sliding in guides, and by means of suitable intermediate parts m^2, a, g, r , in combination with a fixed but adjustable knife box M¹, and another one M, moving up and down in suitable guides by means of lever mechanism, both which parts work the plates or wires p, or p¹, in such manner that by means of the intimate co-operation of the card cylinder Z, knife box M or M¹, and plate or wire tray P or P¹, the pile is held throughout evenly apart and interwoven, whilst at the same time the knife box or the plate, or wire tray can be adjusted and thus any height of pile be produced, and by an arrangement of eccentric or pattern discs a crossing of the threads of the upper and lower goods may be prevented as well as by a rising and falling, as required, of the Jacquard machine, and on the standing still

of the one half of the same, the movement of the other is brought about, or *vice versa*, all substantially as described and shown on the accompanying drawing.

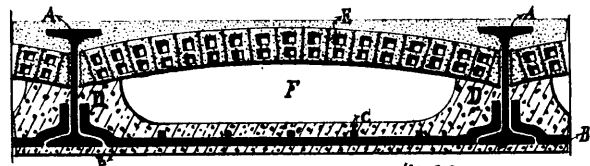
No. 54,980. Obturator. (Obtuteur.)



Louis Lavergne dit Renaud, Montréal, Québec, Canada, 12 février 1897; 6 ans. (Déposé le 14 octobre 1896.)

Résumé—1er. Dans un obturateur tendant à séparer les égouts, soit des tuyaux de chute d'une maison, soit des couches d'égouts, l'emploi d'un clapet G, tel que décrit. 2ème. Dans un obturateur tendant à séparer les égouts, soit des tuyaux de chute d'une maison, soit des couches d'égouts, l'emploi d'un clapet G, fortement serré contre son siège, et isolant complètement d'égout, soit le tuyau de chute d'une maison, soit l'intérieur. 3ème. Dans un obturateur tendant à séparer les égouts, soit du tuyau de chute d'une maison, soit de couches d'égout, la combinaison du levier J, permettant de serrer fortement le clapet contre son siège. 4ème. Dans un obturateur tendant à séparer les égouts, soit du tuyau de chute d'une maison, soit des couches d'égouts, la combinaison du couvercle D, fermant l'ouverture C, de l'étrier E, de la vis V, et de croisilles F, tel que ci-dessus décrit, et pour les fins indiquées.

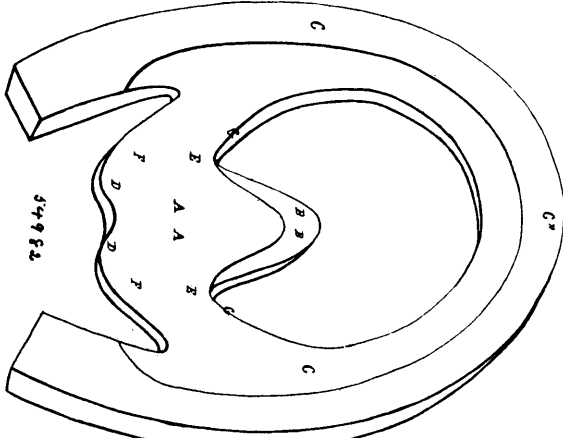
No. 54,981. Fire Proof Flooring and Ceiling. (Plancher et plafond incombustible.)



Adolphe Vervort, Montréal, Québec, Canada, 12 février, 1897; 6 ans. (Déposé le 28 septembre 1896.)

Résumé.—Dans un plancher et plafond incombustible, la combinaison des fers A, B, C, et du betou D, avec la partie cintrée E, le tout formant l'espace vide F, tel que ci-dessus décrit et pour les fins indiquées.

No. 54,982. Horse Shoe. (Fer à cheval.)

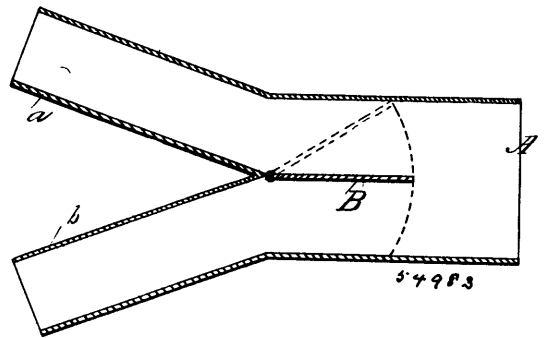


Joseph Adolphe Garneau, Québec, Canada, 12 février 1897; 6 ans. (Déposé le 2 novembre 1896.)

Résumé.—1° Les parties marquées A, B, D, E, F, G, et telles que décrites. 2° L'union des dites parties A, B, D, E, F, G, aux

branches latérales C C, du fer à cheval, telle que décrite ci-dessus, et pour les fins indiquées.

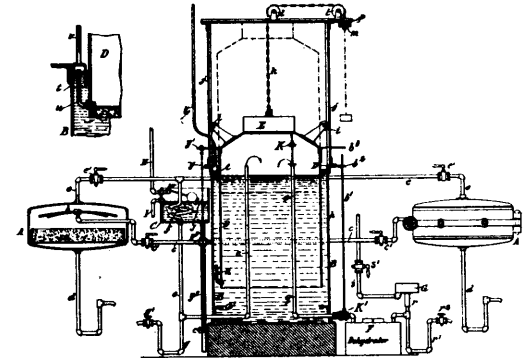
No. 54,983. Grain Conduit. (Conduit à grain.)



William Lord, Saint-Jacques, Québec, Canada, 12 février 1897; 6 ans. (Déposé le 1er juin 1896.)

Résumé.—Dans une machine à mouder, un conduit servant à amener le grain moulu dans les poches, le dit conduit ayant la forme d'Y et pourvu d'une porte B pouvant former l'une ou l'autre de ses branches le tout tel que décrit et pour les fins indiquées.)

No. 54,984. Acetylene Gas Apparatus. (Appareil à gaz acétylène.)

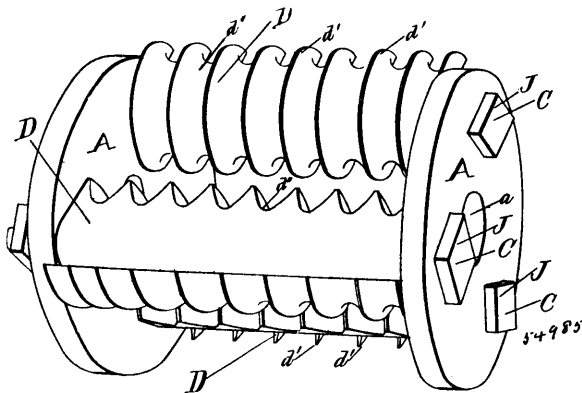


Alfred M. Scott, assignee of Hugh Steven Wallace, both of Hamilton, Ontario, Canada, 13th February, 1897; 6 years. (Filed 17th December, 1896.)

Claim.—1st. A carbide chamber having a water inlet, and a source of water supply therefor under a given pressure, whereby a superior gas pressure in said chamber is effective to stop the inflow of water, combined with a gas holder, a gas outlet pipe from said chamber to said holder, and means for resisting the rise of the floating bell of said holder above a given level with sufficient force to accumulate a gaseous pressure sufficient to stop the inflow of water. 2nd. A carbide chamber having a water inlet, and a source of water supply therefor under a given pressure, whereby a superior gas pressure is effective to stop the inflow of water, combined with a gas holder, a gas outlet pipe from said chamber to said holder, and a weight arranged to be engaged by the floating bell of said holder when it rises to a given level, and to be lifted by the bell during its continued rise, adapted to increase the pressure of the gas sufficiently to stop the inflow of water. 3rd. A carbide chamber having a water inlet pipe terminating in a sprinkler above the carbide, and a water reservoir at a given level above said inlet pipe, combined with a gas holder, a gas outlet pipe from said chamber to said holder, the floating bell of said holder movable under a less gas pressure than equals the head under which said water enters, whereby the entering water generates gas which raises said bell, and means for resisting the rise of the bell above a given level with sufficient force to increase the gaseous pressure above that of the head of water, whereby the water is driven ba k in said inlet pipe and ceases to sprinkle upon the carbide, and any further generation of gas raises the bell against said resisting means. 4th. In an acetylene gas apparatus, a carbide chamber having an inlet for admitting water into contact with the carbide, and an outlet for discharging the excess of water from the chamber. 5th. In an acetylene gas apparatus, a carbide chamber having an inlet pipe for sprinkling water upon the carbide, and an outlet at its bottom for draining off any water not retained by the carbide. 6th. In an acetylene gas apparatus, a carbide chamber having an inlet for admitting water into contact with the carbide, and an outlet for discharging the excess of water from the chamber, with a trap communicating with said outlet for retaining the gaseous pressure in the chamber. 7th. The combination of a carbide chamber, a water reservoir, a water pipe therefrom entering said chamber, a

gas holder, a gas pipe leading from said chamber to the gas holder, a weight arranged to be picked up by the bell of said holder in its ascent, and a pressure governor in the outlet pipe from said holder. 8th. The combination of a carbide chamber, a water reservoir, a water pipe therefrom entering said chamber, a gas holder, a gas pipe leading from said chamber to the gas holder, a condenser in a descending portion of said pipe, and a trap for discharging water of condensation from said pipe beneath the condenser. 9th. The combination of a carbide chamber, a water reservoir, a water pipe therefrom entering said chamber, a gas holder, a gas pipe leading from said chamber to the gas holder, a condenser consisting of a descending coil of said pipe immersed in the water in said reservoir, and a trap for discharging the water of condensation therefrom. 10th. The combination of a carbide chamber, a water reservoir, a water-pipe therefrom entering said chamber, a gas holder, a gas pipe leading from said chamber to said holder, and a valve controlling the flow of water from said reservoir to said water pipe, connected to the floating bell of the holder to close when the bell has descended to approximately its lowest position, whereby the water supply is shut off from the carbide chamber when the carbide is exhausted. 11th. In an acetylene gas apparatus, a gas holder the tank of which is formed with a sealed chamber *t* with a vent pipe *v* leading from it, and the floating bell of which is provided with a pipe *u* for discharging surplus gas into said sealed chamber when the holder is full. 12th. In an acetylene gas apparatus, a gas holder having inlet and outlet pipes, and a valve adapted to close the outlet pipe upon the descent of the floating bell to or approximately to its lowest position. 13th. In an acetylene gas apparatus, a gas holder having an outlet pipe *q* and an internal valve *K* suspended above said pipe and adapted to seat itself thereon, upon a descent of the bell to approximately its lowest position. 14th. In an acetylene gas apparatus, a gas holder having inlet and outlet pipes, combined with a valve for closing the outlet pipe, normally open and having a mechanical connection adapted to be encountered by the floating bell of the holder when near its lowest position, and to be depressed by the further descent of the holder to communicate a closing movement to said valve, whereby said valve is closed by the complete descent of the holder, and remains closed until opened manually.

No. 54,985. Cutter Head. (Porte-outil.)

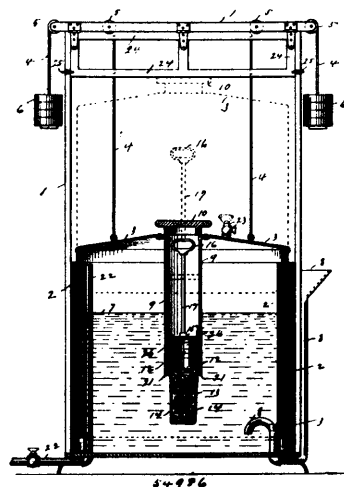


Harvey Milton Wilcox, Owen Sound, Ontario, Canada, 13th February, 1897; 6 years. (Filed 30th January, 1896.)

Claim.—1st. A cutter head for wood-working machinery consisting of a frame, a plurality of cutting tools mounted in the frame, each tool consisting of a hub, a plurality of concentric cutting blades, and a cutting front for the cutting blades, substantially as specified. 2nd. A cutter head for wood-working machinery consisting of a frame, a plurality of cutting tools mounted in the frame, each cutting tool consisting of a hub, a plurality of concentric cutting blades, a cutting edge for the cutting blades, at a tangent to the hub, concave sides for the cutting blades forming semi-circular intervals between each adjacent pair, substantially as specified. 3rd. A cutter head for wood-working machinery consisting of two side plates capable of being fastened to a shaft, a plurality of stay bolts passing through the side plates at equidistant points, and concentric with the centre of the side plates, a cutting tool mounted on each of the stay bolts, consisting of a hub, a plurality of cutting blades formed integrally with the hub, a cutting front for the cutting blades and a plurality of recesses in the inner faces of the side plates to receive the ends of the said hubs, substantially as specified. 4th. A cutter head for wood-working machinery consisting of two side plates capable of being fastened to a shaft, a plurality of stay bolts passing through the side plates at equidistant points, and concentric with the centre of the side plates, a cutting tool mounted on each of the stay bolts, consisting of a hub, a plurality of cutting blades formed integrally with the hub, a cutting front for the cutting blades, the sides of the cutting blades concave to form semi-circular shaped intervals between each adjacent pair of blades, and a plurality of recesses in the inner faces of the side plates to receive the ends of the said hubs, substantially as specified.

No. 54,986. Apparatus for Manufacture of Gas.

(Appareil pour la fabrication du gaz.)



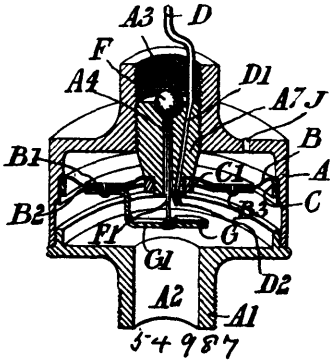
Ezra Farnsworth, Minneapolis, Minnesota, U.S.A., 13th February, 1897; 6 years. (Filed 12th December, 1896.)

Claim.—1st. In a gas apparatus, the combination of a gasometer, a tube extending within the gasometer, provided with an exterior opening, means for closing said exterior opening, a piston within the tube, provided with an opening, means for closing said last named opening, and a receptacle suspended below the piston, substantially as shown and described. 2nd. In a gas apparatus, the combination of a gasometer, a tube suspended within the gasometer, said tube having an exterior opening, means for closing said exterior opening, a piston fitted to said tube, provided with a central opening, means for closing said central opening, and a receptacle suspended from the piston, substantially as shown and described. 3rd. In a gas apparatus, the combination of a gasometer having a bell adapted to rise as the production of gas fills the gasometer, a tube within the gasometer suspended from said bell, said tube having an exterior opening, a piston fitted to said tube, and a receptacle suspended below the piston, substantially as shown and described. 4th. In a gas apparatus, the combination of a gasometer having a bell adapted to rise as the production of gas fills the gasometer, a tube suspended from said bell and provided with an exterior opening, a piston fitted to said tube and having an opening through the same, means for closing said last opening, and a receptacle suspended below said opening, substantially as set forth. 5th. In a gas apparatus, the combination of a gasometer, a tube suspended within the gasometer, a piston fitted to said tube, an opening leading from the exterior through said tube and piston to the interior of the gasometer, an open receptacle into which said opening leads, and means for closing said opening, substantially as set forth. 6th. In a gas apparatus, the combination of a gasometer, a tube suspended within the gasometer, a movable piston fitted to said tube, an opening leading from the exterior through said tube and piston to the interior of the gasometer, means for closing said opening, an open receptacle suspended from the inner end of said piston, and means for drawing said basket and piston through said tube, substantially as herein set forth. 7th. In a gas apparatus, the combination of a gasometer, having a bell adapted to rise as the production of gas fills the gasometer, a tube open at both ends suspended from said bell, a movable piston fitted to said tube and provided with a central opening, a receptacle suspended from the inner end of said piston, means for closing said openings, and means for drawing the piston and receptacle through the tube, substantially as shown and described. 8th. In a gas apparatus, the combination of a gasometer, a tube open at both ends suspended within the gasometer, one of said ends opening outside of the gasometer, a piston fitted to said tube, an opening leading through said piston to a receptacle suspended from the inner end of said piston, means for moving the piston and receptacle through the tube, means for closing the opening leading into said receptacle, and means for holding and retaining the piston and basket at the end of the tube, substantially as shown and described. 9th. In a gas apparatus, the combination of a gasometer, a receptacle within the gasometer adapted to hold a solid within a liquid for the production of gas, a tube leading from the exterior to said receptacle, and means adapted to prevent the escape of gas from the gasometer in replenishing the solid in said receptacle, consisting of a piston fitted to said tube, said piston having an annular space between its walls and the walls of the tube, and suitable packing within said annular space, substantially as set forth. 10th. In an automatic apparatus for the production of gas, the combination of a telescoping gasometer, a tube suspended from the movable cover of the gasometer, a piston fitted to said tube, an open receptacle suspended by the piston, and so held as to be alternately immersed in water and lifted above it as the production of gas proceeds or

ceases, and a movable stop frame located above said movable cover, adapted to limit the upward motion of the cover, substantially as set forth.

No. 54,987. Regulating Device for Burners.

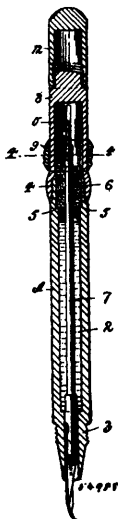
(*Régulateur pour brûleurs de gaz.*)



Frank Litherland Teed, 15 Victoria Street, Middlesex, and Harry Williamson Teed, 188 Camberwell Grove, Surrey, both in London, England, 13th February, 1897; 6 years. (Filed 27th November, 1896.)

Claim.—1st. A gas-regulation device in which main and pilot valves are operated by varying the gas pressure supplied to the pressure supplied to the device so as to cause one valve to open and the other to close, as and for the purpose specified. 2nd. A gas-regulation device in which main and pilot valves are operated by varying the gas pressure supplied to the device, so as to simultaneously cause one valve to open and the other to close and *vice versa*, as and for the purpose specified. 3rd. In a gas-regulation device, the combination with the main chamber supplied with suitable inlets and exits, of a flexible diaphragm, a main valve connected to the flexible diaphragm, a pilot burner exit pipe, a pilot valve connected to the flexible diaphragm, and means for regulating the supply of gas admitted to the chamber, substantially as specified. 4th. The combination with two or more of the described gas-regulation devices, of a single supply pipe and control tap or equivalent for the purpose specified. 5th. In a gas-regulation device, the combination with the main chamber supplied with suitable gas inlet and outlet and an orifice admitting air to the upper part of the chamber, of a flexible diaphragm, a main valve connected to the flexible diaphragm, a pilot burner exit pipe, a pilot valve connected to the flexible diaphragm and arranged so as to partially exclude gas from the pilot burner exit pipe, and means for regulating the supply of gas admitted to the chamber, substantially as specified. 6th. In a gas-regulation device, the combination with the chamber A, of the flexible diaphragm B, main valve F, connecting rod F', inlet A², exit A³, passages A⁵ and A⁴, orifice J, perforated leather packing disc H, rod G', valve G, exit pipe D', substantially as and for the purpose specified.

No. 54,988. Fountain Pen. (*Plume fontaine.*)

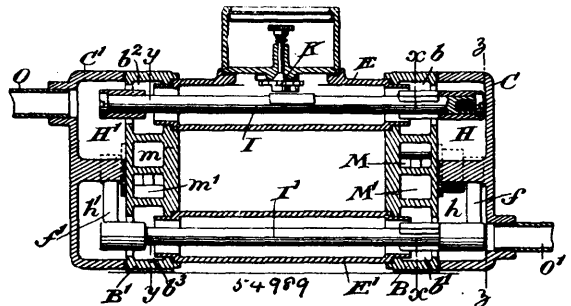


Morris W. Moore, Chelsea, Massachusetts, U.S.A., 13th February, 1897; 6 years. (Filed 18th December, 1896.)

Claim.—1st. In a fountain-pen, in combination, a pen-bar having its forward end portion of substantially cylindrical form, and carry-

ing at its forward end the writing-pen, the barrel or fount having a circular bore or chamber therein which leads to its forward end of less diameter than at its portion which is above said forward end, said contracted circular opening being, however, of a diameter as great as the width of the writing-pen, and said substantially cylindrical forward end portion of the pen-bar fitting the round contracted forward end opening in the barrel, whereby the pen-bar is adapted to be slid to present the pen outwardly, and to be moved upwardly within and beyond the contracted end portion of the barrel, then leaving an unobstructed space between it and the larger internal wall of the barrel for the entrance through into the barrel of the ink, substantially as described. 2nd. In a fountain-pen, an ink-fount having a circular orifice at its outer end, an enlarged chamber above said orifice, and a practically cylindrical pen-support adapted to be moved into the circular orifice, and to be withdrawn within the enlarged chamber, by which withdrawing the end orifice is opened for filling, all combined substantially as described. 3rd. In a fountain pen, the ink-fount having its tip integral with its body portion and having an opening in said tip through which the pen and its support may be projected, and an ink-chamber of greater diameter above said opening, a pen-support equal in diameter to the width of the pen which it carries, and means for projecting said pen-support from said opening, and for withdrawing it within the chamber so that the chamber may be filled from the point, all combined substantially as described. 4th. In a fountain pen, the barrel and tip made integral, said tip having an opening of a width to pass a pen and pen-support, a chamber in the barrel above said tip of a greater diameter than the opening in the tip, a pen-support as wide as the pen and extending through the opening in the tip, a pen-bar connected to said tip and extending through the ink-chamber, a packing surrounding said bar above said chamber, and means for moving said bar arranged above said chamber, all combined substantially as described.

No. 54,989. Liquid Meter. (*Compteur pour les liquides.*)



William Miles Fowler, Stanford, Connecticut, U.S.A., 13th February, 1897; 6 years. (Filed 21st December, 1896.)

Claim.—1st. A liquid meter comprising a plurality of cylinders, a piston for each cylinder free to move within said cylinder, valves at the opposite ends of each cylinder, an inlet conduit in communication with the opposite ends of each cylinder, an outlet conduit in communication with the opposite ends of each cylinder, a connection between the valves and the opposite ends of one cylinder and extending along the inlet conduit, a connection between the valves of a companion cylinder, the said connection extending along the outlet conduit, the valves at the ends of each cylinder being under the control of the piston in that cylinder to admit liquid to the companion cylinder, and means for recording the strokes of the pistons, substantially as set forth. 2nd. A liquid meter comprising a plurality of cylinders each provided with a piston free to move within the cylinder, cylinder heads provided with ports and passageways for interconnecting the ends of the cylinders, chambered caps exterior to the heads and having their interiors in communication with the said interconnecting passageways in the heads, an inlet conduit in communication with said chambered caps and heads, an outlet conduit in communication with said chambered caps and heads, valves at opposite ends of one of the cylinders, a connection between said valves extending along the inlet conduit, valves at the opposite ends of the companion cylinder, a connection between said valves extending along the outlet conduit, and a registering device engaged with one of said valve connections, substantially as set forth.

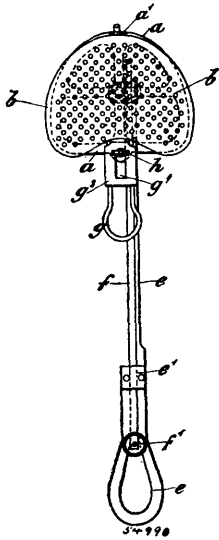
No. 54,990. Dentists' Soldering Apparatus.

(*Appareil à souder pour dentistes.*)

John Fletcher, Bristol, Gloucester, England, 13th February, 1897; 6 years. (Filed 22nd December, 1896.)

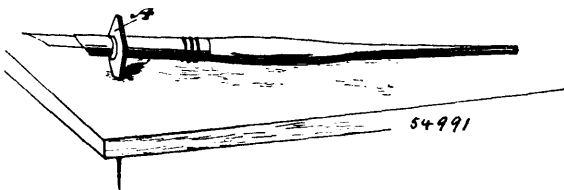
Claim.—1st. Apparatus for use in soldering artificial teeth to mouth plates, comprising a carrier or bracket for supporting a detachable investment tray, a handle or stem on which said carrier or bracket is mounted to rotate, and means for rotating said carrier or bracket. 2nd. Apparatus for use in soldering artificial teeth to mouth plates, comprising a carrier or bracket for supporting a detachable investment tray, a handle or stem on which said carrier or bracket is mounted to rotate, and means for rotating said inves-

ment tray carrier or bracket, said means consisting of a pinion fixed on the carrier spindle and a rack that is in gear with said pinion



and extends back parallel with said handle and is capable of being reciprocated, substantially as described. 3rd. The improved investment tray *b* consisting of a plate of copper or other suitable metal or material, and a frame upon which said plate is fixed, said frame being adapted to be readily attached to and detached from a carrier, substantially as described. 4th. Apparatus for use in soldering artificial teeth to mouth plates, comprising a carrier *a* fixed upon a spindle *c*, a handle or stem *e* carrying lugs *d*¹, *d*², in which said spindle is pivoted, a socket or guide *e*¹, and a plate *e*², a pinion *d* fixed on said spindle between said lugs, a rack *f* that is in gear with said pinion, is arranged to work between the same and said handle or stem and through said socket or guide, and an investment tray *b* adapted to be readily attached to and detached from said carrier, substantially as described and shown.

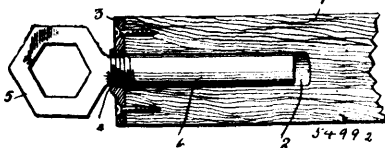
No. 54,991. Finger-Guard. (Garde-doigts.)



Edgar W. Potter, Rochester, New York, U.S.A., 15th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. As an improved article of manufacture, a finger-guard consisting of a rubber disc or body essentially polygonal in shape, and having a central circular bore or aperture and a metallic expanding spring arranged centrally of the bore, substantially as shown and described. 2nd. As an improved article of manufacture, a finger-guard for pens and pencils, and the like, consisting of a rubber disc, or body essentially hexagonal in shape, and having a central circular bore or aperture, said disc or body being thickest at the centre and tapering gradually toward the sides, and a metallic expanding spring arranged central within the bore adapted to expand the centre of said bore, and contract the edges, substantially as shown and described.

No. 54,992. Snath and Scythe Wrench. (Clé à érou.)



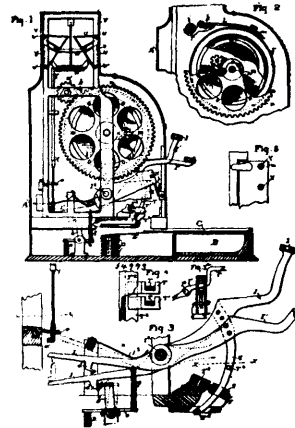
Herman O. Kruschke, Aurora, Wisconsin, U.S.A., 15th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. A snath provided with an opening to receive the handle of a wrench, and securing means situated within said opening. 2nd. A snath provided at its end portion with an opening to receive the handle of a wrench, and securing means situated within said opening. 3rd. The combination with a snath having an opening in the end portion thereof, and a plate secured to the end portion of said snath and having a screw-threaded aperture, of a wrench

having a screw-threaded handle situated within said opening. 4th. The combination with a snath having an opening in the end portion thereof, an apertured plate secured to the end portion of said snath and having spring fingers, of a wrench having a handle situated within said opening.

No. 54,903. Cash Register and Indicator.

(Registre et indicateur de monnaie.)



The Columbia Cash Register Co., assignee of Edward T. Taylor, all of Oakland, California, U.S.A., 15th February, 1897; 6 years. (Filed 26th December, 1896.)

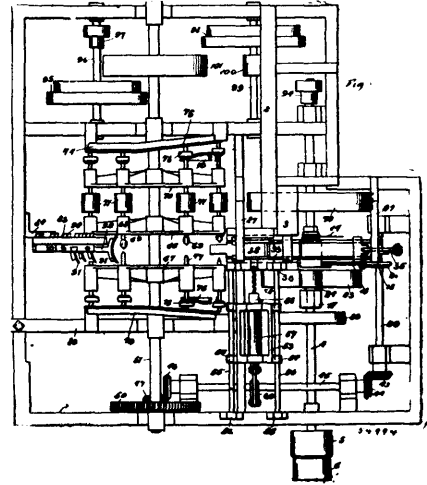
Claim.—1st. The combination with controllers of keys, each key having portions adapted to bear lightly upon opposite parts of its controller when said key is moved in one direction, and to cramp said portion and prevent its movement in the other direction until said first named movement is completed. 2nd. A cash register consisting of one or more drums having figures imprinted spirally thereon, indicator plates adapted to be advanced transversely to the rotary movement of the drums so as to follow the lines of figures, means for rotating the drums and advancing the indicators, consisting of mechanism intermediate between the drums and depressible keys, a locking plate whereby the depression of the keys is prevented when the indicator plate has reached the termination of its travel, and mechanism actuated by said indicator plate whereby the locking plate or bar is thrown into engagement to prevent further operation of the keys. 3rd. In a cash register, key levers, a bar operated thereby, the spirally imprinted drums, mechanism by which said drums are rotated, an indicator plate or plates adapted to be advanced transversely to the rotary movement of the drums so as to follow the lines of figures, a fulcrum shaft upon which the indicator plate is loosely mounted and movable from end to end, a spring by which said shaft is normally pressed in one direction, a collar upon the shaft against which the indicator plate makes contact when it has reached the end of its travel, a rod, one end of which is in line and in contact with the end of the fulcrum shaft and the other end in contact with a tilting plate which it normally holds out of the line of motion of the bar which is operated by the key levers, said rod being moved by the end motion of the fulcrum shaft so as to disengage the locking plate and allow the latter to lock the key operated bar so as to prevent the further operation of the keys. 4th. In a cash register, key levers movable about a fulcrum point, arms connected and movable with said levers, slotted binding plates through which the arms pass, said plates being loosely supported and yielding to allow the arms to be moved downward and movable so as to lock the arms and prevent the keys from rising. 5th. In a cash register, key levers movable about a fulcrum point, arms connected and movable with said levers, loosely suspended slotted plates through which said arms pass, springs with which the outer ends of said plates engage whereby they are held in position to bind against and prevent the key levers from rising, if released, at any intermediate point in the depression of the keys, pins projecting from the arms adapted to form contact with the binding plates when the keys reach their lowest point, whereby the plates are moved with relation to the holding springs, and the slots or channels brought into line with the arms so as to allow the latter to move freely through them and the keys to rise. 6th. In a cash register, key levers movable about fulcrum points having arms connected and movable with them, loosely supported slotted plates, through which the arms pass, springs by which the said plates are held in position to clamp the arms and prevent their moving up from any intermediate point during the downward movement of the keys, pins projecting from said arms to engage the clamping plates from above and move them with relation to their holding springs so as to bring the slots into line with the arms and allow the latter to slide freely through the slots so that the keys may return to their normal position, other pins fixed to the arms and adapted to engage the plates from below when the keys have reached their normal position whereby the plates are again tilted with relation to their holding springs so as to be in position to bind the arms when the

keys are again depressed. 7th. In a cash register, key levers depressible about their fulcrum points, mechanism to prevent the depression of more than one lever at a time, consisting of a tilting bar and upwardly extending arms carried thereby and provided with lugs adapted to engage lugs upon the key levers, springs acting on the tilting bar at one side of its fulcrum whereby these said arms are normally held out of contact with the key levers, and other springs connected with the bar on the opposite side of its fulcrum and with levers having a tension such that the depression of two levers will overcome the tension of the first named springs, and allow the tilting bars to engage with and lock the key levers so as to prevent their being depressed. 8th. In a cash register, fulcrumed key levers, indicator plates by which the amount of the transaction is visibly signalled, vertically movable rods actuated by the key levers so as to expose the indicator plates, and a tilting plate having openings through it of sufficient size to allow the rods to freely pass in one direction, said plate then tilting about its axis so that the edges of the walls of the openings through which the rods pass will bind against the opposite sides of the rods and retain said rod in an elevated position after the key lever has returned to its normal position. 9th. In a cash register, vertically moving, indicator-actuating rods, key-levers adapted to engage said rods when the keys are depressed, a plate having openings through it of a sufficient size to allow the rods to freely pass in one direction, said plate being pivotally mounted so that the opposite edges of the walls of its openings may bind against the opposite sides of the elevated rod to maintain said rod elevated after the key-lever has returned to its normal position, and lugs upon the rods adapted to be raised into contact with the tilting plate, by the rear ends of the key-levers, to rock said plate about its axis and release the edges of the walls of its openings from their contact with the sides of the elevated rod, when any other key lever is operated and its indicator rod elevated. 10th. In a cash register, spirally imprinted drums, with indicator plates movable at right angles, with the direction of rotation of the drums, key-levers fulcrumed and depressible about their fulcrum points, mechanism intermediate between the key-levers and the drums, consisting of ratchet wheels, a pawl carrying arm connected so as to be actuated by the depression of any key-lever whereby the ratchet wheel is rotated in proportion to the movement of the key-lever, a spring coiled within the drum having one end connected therewith and the other with the shaft of the ratchet wheel, whereby the movement of the ratchet wheel partially winds the spring, a gear wheel fixed to the drum shaft and movable therewith, a pinion with which the gear engages, a worm gear fixed upon the pinion shaft, a device whereby the worm is locked to prevent the rotation of said gear when a key is depressed, said device releasing the worm so as to allow the gear and pinion to rotate, and the drum to advance after the key has returned to its normal position. 11th. In a cash register, spirally imprinted drums and indicators movable at right angles with the direction of rotation of the drums so as to follow the lines of figures thereon, depressible keys and key-levers, a bar extending beneath said levers so as to be depressed by the movement of either key-lever, a ratchet wheel, a pawl engaging said ratchet wheel attached to a lever movable about the ratchet wheel shaft, and a link connecting the ratchet lever with the key-actuated bar whereby the depression of any key moves the ratchet lever and the ratchet wheel, a spring coiled within the drum having one end secured thereto and the other to the ratchet wheel shaft whereby the spring is partially coiled by each advance of the ratchet, while the drum remains stationary, a gear wheel connected with the drum shaft and engaging with a pinion upon the shaft of a worm gear wheel, a device whereby the worm is locked and prevented from rotating during the depression of a key-lever and released so as to allow the connected parts and the imprinted drum to advance after the key lever has risen to its normal position. 12th. In a cash register, the spirally imprinted drum with indicating plate adapted to be advanced transversely to the rotary movement of the drum, a spring coiled within the drum having one end connected therewith and the other with a ratchet wheel shaft, a pawl lever and pawl engaging the ratchet wheel and connected with the key-actuated bar whereby the depression of any key moves the ratchet wheel and coils the spring within the drum, a locking mechanism whereby the drum is prevented from rotating during the advance of the ratchet wheel and is released so as to be rotated by the spring after the key has returned to its normal position, a gear wheel mounted upon the ratchet wheel shaft so as to be rotated by the movement of the pawl lever, a pinion with which said gear engages, an escapement wheel fixed upon the pinion shaft and an escapement engaging said wheel and oscillating during the movement of the pawl lever so as to limit the rotative movement of the ratchet wheel upon the downward stroke of a key lever. 13th. The combination with the reciprocating key levers of a cash register, of arms carried thereby, and loosely pivoted clamping plates through which the arms move freely in one direction, said plates acting to bind against the sides of the arms, and prevent the keys returning in the opposite direction. 14th. The combination with the reciprocating key levers of a cash register, of arms carried thereby, loosely pivoted clamping plates through which the arms move freely in one direction, and which bind against the sides of the arms to prevent their moving in the opposite direction, and mechanism actuated by the key-levers at the end of their stroke whereby the clamping plates are shifted to allow the levers to return to their normal position. 15th. The combination with the reciprocating key-levers and movable indicator tablets of a cash register, of a hinged tilting binding

plate having openings through which the tablet actuating rods move freely in one direction, and whose edges bind against opposite sides of the rods to prevent their falling when the key lever descends, each rod having a lug which serves to disengage the plate and allow a previously engaged rod to fall.

No. 54,994. Wood-Turning Machine.

(Machine à tourner le bois.)

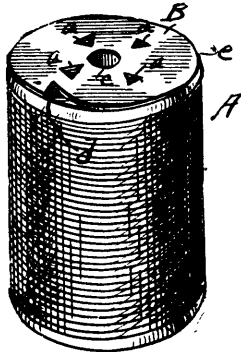


William Thomas Jones, New Westminster, British Columbia, Canada, 15th February, 1897; 6 years. (Filed 28th December, 1896.)

Claim.—1st. A wood-turning machine, comprising a series of fixed cutters, a rotary block carrier for moving blocks against said cutters, means for rotating the blocks relatively to the carrier, a saw for severing a block from the strip, means for imparting a back and forth motion to said saw, means for moving a block forward, and a reciprocating frame for holding and operating a boring tool, substantially as specified. 2nd. A wood-turning machine, comprising a main shaft, a saw-carrying frame mounted to swing relatively to said main shaft, a circular saw carried by said frame, means for rotating the saw from the main shaft, a carriage for moving a sawed block forward, a bit-carrying carriage movable at right angles to the block-moving carriage, means for operating both of said carriages, a rotary carrier, chucks and spindles mounted in said carrier, and adapted to rotate relatively thereto, and cutter blades arranged near the carriage, for engaging with and cutting or turning the block, substantially as specified. 3rd. A wood-turning machine, comprising a main shaft, a saw-carrying frame mounted on and adapted to rock with the frame, a pulley on the arbor of said saw, adapted for engagement with a band extended from a band wheel on the main shaft, guide rods arranged at one side of the saw, a carriage on said guide rods, pushing fingers on said carriage and adapted to swing relatively thereto, a fulcrumed lever having a link connection with the carriage, an eccentric for rocking said lever, a boring device forward of the saw, a block carrier forward of the boring device, and cutter blades, substantially as specified. 4th. In a wood-turning machine, the combination with cutter blades, and a carrier for moving a block of wood against the same, of chucks and spindles mounted on said carrier and adapted to rotate relatively thereto, means for rotating the chucks relatively to the carrier, a bit-carrying frame movable transversely of the block carrier, a fulcrumed lever having a link connection with said bit-carrying frame, an eccentric rocking said lever, an elongated roller mounted in the bit-carrying frame and adapted to be engaged by a band extended from a band wheel on the main shaft of the machine, a rotary saw, and means for forcing a block forward to the saw, substantially as specified. 5th. In a wood-turning machine, the combination with a saw, of guides extending along one side of said saw, knife-edged flanges on the opposite sides of said guides, means for pushing a block between said knife-edged flanges, a reciprocating bit-carrying frame, means for imparting motion thereto, a rotary block carrier, and turning knives arranged near said block carrier, substantially as specified. 6th. In a wood-turning machine, the combination with a carrier for blocks, of a segmental plate concentric with said carrier, guide plates mounted to swing on said segmental plate, cutter blade shanks adjustable longitudinally in said guide plates, and means for securing them as adjusted, substantially as specified. 7th. In a wood-turning machine, the combination with a saw, a block carrier and cutting or turning blades, of a block shifter comprising a carriage or frame, guide rods on which said carriage or frame is movable, pushing fingers mounted to swing vertically on said carriage, a pivoted lever having a link connection with the carriage, an eccentric shaft, and an eccentric on said eccentric shaft engaging against the walls of an elongated opening in said lever, substantially as specified. 8th. In a wood-turning machine, the combination with

sawing and boring devices, of a block carrier, chucks carried by said block carrier and adapted to rotate relatively thereto, a ring plate having bevelled portions for moving the chucks into and out of engagement with blocks, spindles mounted on and adapted to rotate relatively to said block carrier, a ring plate having bevelled portions adapted to move said spindles into and out of engagement with a block, and cutters arranged adjacent to the block carrier, substantially as specified. 9th. In a wood-turning machine, the combination with a block, of a segmental plate concentric to the block carrier, guide plates having pivotal connection near their inner ends with said segmental plates, screw-threaded lugs on said guide plates passing through arc slots in the segmental plate, set nuts on said lugs, and knife-carrying shanks adjustable in said guide plates, substantially as specified. 10th. In a wood-turning machine, the combination with a saw, a boring device, and a block carrier, of a block shifter comprising a reciprocating carriage, a fulcrumed lever having a link connection with said carriage, an eccentric shaft, a finger extended radially from said eccentric shaft, and pins arranged at opposite sides of a slot opening in said lever and adapted to be engaged successively by the finger on the eccentric shaft, the pivotal point of said lever being forward of a vertical line through the axis of the eccentric shaft, substantially as specified.

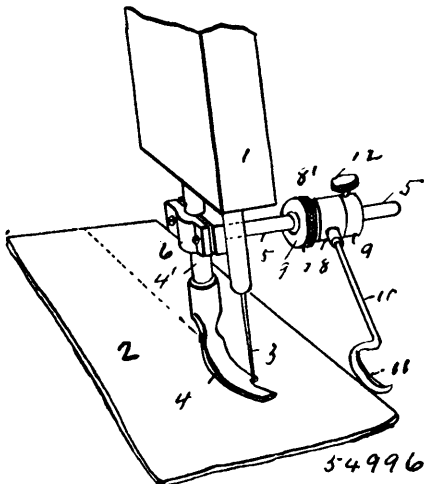
No. 54,995. Thread-Cutting Attachment for Spools.
(Appareil à couper le fil pour fuseaux.)



Henry Ginty, Millersburg, Ohio, U.S.A., 15th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. A thread cutting attachment for spools, consisting of a notched and flat circular plate having a continuous cutting edge around its periphery and uninterrupted except by the notch, and an expansible tubular stem upon the under side of the plate, said tube being of a uniform diameter throughout its length whereby the entire circumference of the stem will be brought in frictional contact with the wall of the opening in the spool, and means for holding the attachment securely to the spool, substantially as and for the purpose set forth. 2nd. A thread cutting attachment for spools, consisting of a notched circular dish-shaped plate having an up-turned cutting edge around its circumference, and an expansible tubular stem upon the under side of the plate, substantially as and for the purposes specified.

No. 54,996. Quilter. (Machine à piquer.)

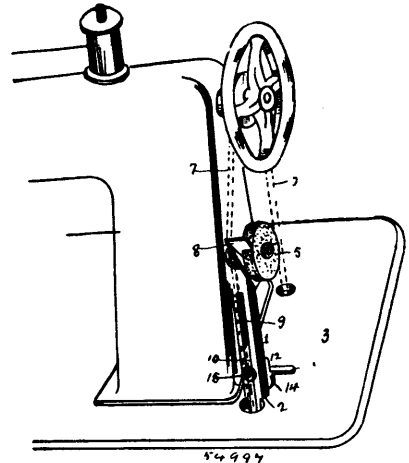


Per Olson, Saginaw, Michigan, U.S.A., 15th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. A seam guide for sewing machines, comprising a rod adapted to be clamped in a horizontal position to the presser-

foot bar above the presser-foot by means of a clamp, and having a gauge upon its upper surface, a sleeve upon the rod adapted to be moved longitudinally thereon and to be clamped thereto in any position desired by a thumb-screw, the sleeve carrying a loose ring and means for securing the ring on a sleeve so that it may be turned thereon, and a depending-rod carried by the ring and extending to the machine-bed, and a curved foot carried on the right angle extension of the depending-rod, the extension being toward the presser-foot, substantially as and for the purpose set forth. 2nd. In a seam-guide for sewing machines, the combination with a rod adapted to be clamped in a horizontal position to the presser-foot bar above the presser-foot, and means for clamping the same, a scale upon the surface of the said rod, a sleeve adapted to be moved longitudinally on the bar and clamped thereto as desired, and means for clamping it as described, of a ring loose on the sleeve, a nut and washer adapted to engage the sleeve and hold the ring loosely thereon, a depending rod carried by the ring, a curved foot on the end of the rod adapted to rest upon the bed of the machine, the foot connected to an extension of the rod between the rod and the presser-foot, substantially as and for the purpose set forth.

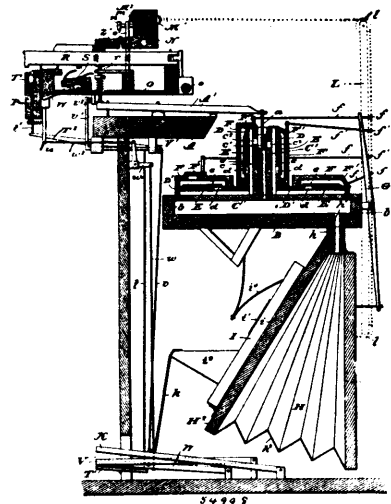
No. 54,997. Attachment for Sewing Machines.
(Attache pour machines à coudre.)



Charles A. Baker, Arkansas, Kansas, U.S.A., 15th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—A grinding attachment for sewing machines, comprising a vertical standard, having a longitudinal slot, a grinding wheel mounted on a standard, a pulley connected with the grinding wheel and adapted to be operated by a sewing machine, and a clamp comprising a slide arranged in the slot of the standard, a fixed jaw arranged at one end of the slide, and a tapering pivoted eccentric mounted at the opposite end of the slide adapted to engage a sewing machine table and to bind against the standard, substantially as described.

No. 54,998. Reed Organ. (Orgue.)



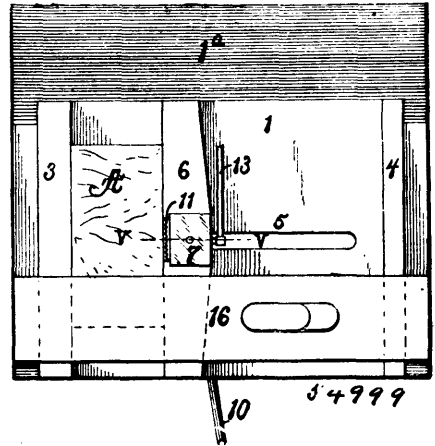
William Shepherd Moses, Tracy, Minnesota, U.S.A., 15th February, 1897; 6 years. (Filed 4th January, 1897.)

Claim.—1st. The combination in a reed-organ, of air-exhaust mechanism, having a movable board, the board being connected to a

plurality of valves covering the reed-chambers, whereby the movement of the board will open the valves successively. 2nd. In a reed-organ, the combination of air-exhaust mechanism communicating with a sounding-chamber, a plurality of reed-chambers having valves, and means substantially as shown connected to the air-exhaust mechanism for operating the valves successively. 3rd. In a reed-organ, the combination of air-exhaust mechanism communicating with the sounding-chamber, the air-exhaust mechanism having a swinging board, a plurality of reed-chambers and passages connecting said reed-chambers with the sounding-chamber, valves covering openings in the reed-chambers, and a lever, or levers, connected to the swinging board and to the valves, substantially as shown and described. 4th. In a reed-organ, the combination of air-exhaust mechanism, a sounding-chamber communicating therewith, and a plurality of reed-chambers connected to the sounding-chamber and provided with valves; together with means connected to the valves and to a board of the air-exhaust mechanism for opening the valves successively as said board is moved, and an indicator or slide for indicating the number of valves that are opened. 5th. In a reed-organ, the combination of air-exhaust mechanism, a sounding-chamber communicating therewith, a strip having a series of vertical openings and ports which lead to the reed-chambers, valves covering openings in the reed-chambers, and means connected to the valves and to a swinging board of the air-exhaust mechanism, substantially as shown and described. 6th. The combination in a reed-organ, of a sounding-chamber connected with means for exhausting the air therein, a strip having a series of openings communicating with the sounding-chamber and ports at different heights or distances apart which lead to the reeds and pistons located in the openings and adapted to uncover the ports successively, substantially as shown and for the purpose set forth. 7th. The combination in a reed-organ, of a sounding-chamber connected with means for exhausting the air therein, a strip having a series of openings or passages communicating with the sounding-chamber and ports at different heights or distances apart which lead from said passages to the reeds, pistons located in the openings and adapted to uncover the ports successively, and means for operating the pistons, substantially as shown and for the purposes set forth. 8th. The combination in a reed-organ, of a sounding-chamber, a strip having a series of openings communicating with the sounding-chamber and ports which lead to the reeds, valves covering openings in the reed-chambers; together with mechanism for exhausting the air in the sounding-chamber, and means connected to the air-exhaust mechanism and to the valves of the reed-chambers for opening said valves successively, substantially as shown and for the purpose set forth. 9th. The combination in a reed-organ having a series of reed-chambers and a sounding-chamber communicating with each other by passages and ports, the ports being located at different heights, substantially as shown, of pistons located in the air-passages and adapted to be moved over the ports, key-levers for operating the pistons, and mechanism for exhausting the air in the sounding-chamber, substantially as shown and for the purpose set forth. 10th. The combination in a reed-organ having a series of reed-chambers and a sounding-chamber communicating with each other by passages and ports, substantially as shown; of pistons located in the air-passages and connected to operating-levers for uncovering the ports; valves covering openings in the reed-chambers; together with mechanism for exhausting the air in the sounding-chamber, and means connected to the air-exhaust mechanism and to the valves for opening said valves successively, for the purpose set forth. 11th. The combination in a reed-organ having a series of reed-chambers and a sounding-chamber communicating with each other by passages and ports, substantially as shown; of pistons located in the air-passages and connected to operating-levers for uncovering the ports; valves covering openings in the reed-chambers; together with bellows for exhausting the air in the sounding-chamber, said bellows having a swinging board, and means connected to the swinging board and to the valves for operating the valves by exhausting the air in the bellows, substantially as shown and for the purpose set forth. 12th. The combination in a reed-organ having a series of reed-chambers and a sounding-chamber communicating with each other by passages and ports, substantially as shown; of pistons located in the air passages and connected to operating-levers for uncovering the ports; valves covering openings in the reed-chambers; together with a bellows or chamber located below the sounding-chamber and communicating therewith, said bellows or chamber having a swinging board and supplemental bellows for exhausting the air therein; and means connecting the swinging board with the valves of the reed-chambers, substantially as shown and for the purpose set forth. 13th. The combination in a reed-organ having a series of reed-chambers and a sounding-chamber communicating with each other by passages and ports, substantially as shown; of pistons located in the air-passages and connected to operating-levers for uncovering the ports; valves covering openings in the reed-chambers; bellows for exhausting air from the sounding-chamber, said bellows having a swinging board which is connected to the valves of the reed-chambers for opening them successively; and an indicator located at the front of the organ-frame and connected to the swinging board for indicating the number of valves that are open. 14th. The combination in a reed-organ having a series of reeds located on opposite sides of passages which communicate with the sounding-chamber, ports

connecting the passages with the reed-chambers and located at different planes, pistons located in the passages and connected to operating-keys, said pistons being adapted to cover and uncover the ports, together with means for exhausting the air in the sounding-chamber, substantially as shown and for the purpose set forth. 15th. The combination in a reed-organ having a series of reeds located on opposite sides of passages which communicate with the sounding-chamber, ports connecting said reeds with said passages, and pistons located in the passages and operated to uncover the ports successively; of a substituting and transposing keyboard having keys which are connected to the pistons for operating the same; and means for tilting the forward end of the keyboard, substantially as shown and for the purpose set forth. 16th. The combination in a reed-organ, of a substituting and transposing keyboard supported at its rear end upon a bar; levers pivoted to the organ frame so that they will engage the under-side of the keyboard; a pedal connected to the levers substantially as shown, a pivoted latch having notches which engage the pedal, and a slot through which a guide-bar passes, a spring for throwing the latch in engagement with the pedal, and a catch for holding the latch against the action of the spring, substantially as shown and described. 17th. In a reed organ, the combination of a transverse strip Z, hinged to the frame so as to overlie the keys, the under edge of the strip being provided with a pad, substantially as shown and for the purpose set forth.

No. 54,999. Block Shaver and Mitre-Cutter.
(Machine à shéper les blocs et coupe-onglet.)



John S. Hoerner, Highland, Illinois, U.S.A., 15th February, 1897; 6 years. (Filed 30th December, 1896.)

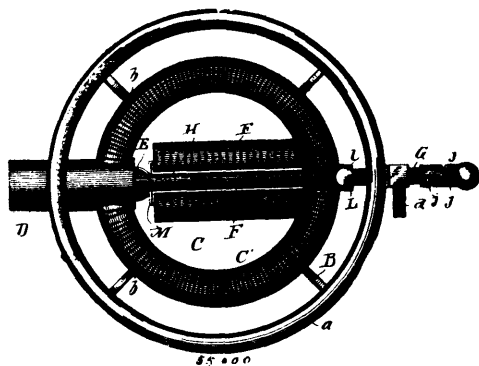
Claim.—1st. In a block-shaver, the combination of a base-board, a clamp on said board, guides on said board, a plane guide frame arranged to operate on said guides, and a plane arranged to operate in said guide frame. 2nd. In a block-shaver, the combination of a base-board, a clamp-bar arranged to slide on said board, and a screw-clamp arranged to operate in said clamp-bar, and a plane guide frame arranged to be moved over said base-board, and a plane arranged to operate in said guide frame. 3rd. In a block-shaver, the combination of a base-board, a clamp on said base-board, ribs on said base-board, a plane guide frame arranged to fit over said ribs, and to be moved across the surface of said base-board, and a plane arranged to operate in a slot in said guide frame, substantially as described. 4th. In a block-shaver, the combination of a base-board, a clamp bar, a screw fitted to said clamp bar, and arranged to operate in a slot in said base-board, a nut arranged to clamp said bar to the base-board, and a plane arranged to operate in said guide frame.

No. 55,000. Burner for Vapour Stoves.
(Brûleur pour poêles à huile.)

J. Wesley Allison, New York, State of New York, U.S.A., assignee of George Washington, Brussels, Belgium, 15th February, 1897; 6 years. (Filed 31st December, 1896.)

Claim.—1st. A burner for oil stoves comprising a circular tube, a mixing chamber in direct communication with said tube, an air tube opening into the mixing chamber and a vaporizing tube located in a position to be heated by the burner and communicating with the mixing chamber. 2nd. A burner for oil stoves comprising a circular tube, a mixing chamber in direct communication with said tube, an air-tube opening into the mixing chamber and a removable vaporizing tube located in a position to be heated by the burner and communicating with the mixing chamber. 3rd. A burner for oil stoves comprising a circular tube, a mixing chamber in direct communication with said tube, an air-pipe leading into said mixing chamber, parallel burner tubes each closed at one end, and communicating at their outer ends with the circular tube, and a vaporizing tube located between and in a plane slightly above the parallel

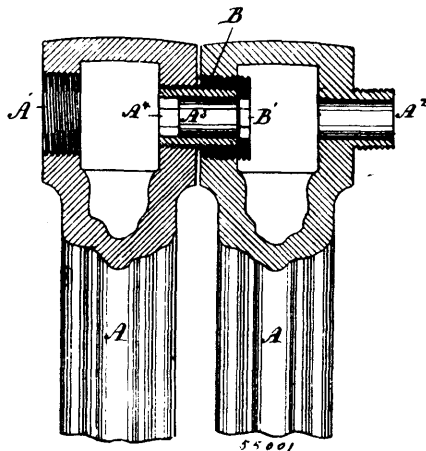
tubes, and communicating with the mixing chamber. 4th. A burner for oil stoves comprising a circular tube, a mixing chamber in direct



communication with said tube, an air-pipe leading into said mixing chamber, parallel burner tubes each closed at one end and communicating at their other ends with the circular tube, and a removable vaporizing tube located between and in a plane slightly above the parallel tubes and communicating with the mixing chamber. 5th. A burner comprising the circular tube, the mixing chamber, the parallel tubes, a starting cup and a vaporizing tube, substantially as set forth. 6th. A burner comprising a circular tube, the mixing chamber, the parallel tubes, and a vaporizing tube having a valve for regulating the supply of vapour to the mixing chamber. 7th. The combination with a stove composed of upper and lower sections and intermediate connecting arms, of a burner resting on shoulders of said arms, the said burner comprising a circular tube, a mixing chamber, parallel tubes, a starting cup, and a removable vaporizing tube, substantially as set forth.

No. 55,001. Radiator Section Couplings.

(Joint pour sections de calorifères.)



Peter C. Ogilvie, Montreal, Quebec, Canada, 15th February, 1897; 6 years. (Filed 31st December, 1897.)

Claim.—1st. A coupling for connecting radiator sections, comprising a tubular cylinder B of uniform diameter internally and externally and reversely screw threaded, one end having a polygonal opening or aperture B¹ to receive a tool, as set forth. 2nd. The combination of two connecting radiator sections A, A', each having a screw-threaded hole A¹, and a screw-threaded tubular projection A², and a coupling B of uniform diameter screwing into said hole, and the interior diameter screwing onto said tubular projection of the adjoining section, said coupling having a polygonal opening or aperture B¹ at one end, as and for the purpose set forth. 3rd. The combination with the radiator sections A, A', of the hollow cylinder A³ having a polygonal opening or aperture A⁴ at one end, and the coupling B having a polygonal opening B¹ at one end, and screwing together, as set forth. 4th. The combination of the tubular coupling B, having a polygonal end B¹, and the tubular connection A³, having a polygonal end A⁴, and screwing together, as set forth.

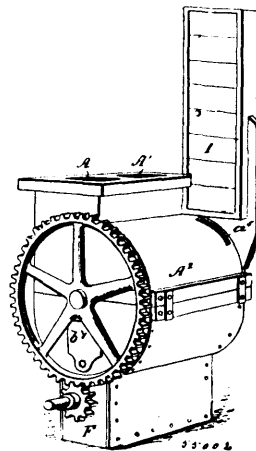
No. 55,002. Grain Proportioner and Mixer.

(Mélangeur de grain.)

Franklin S. Ritter, Cheboygan, Michigan, U.S.A. 15th February, 1897; 6 years. (Filed 4th January, 1897.)

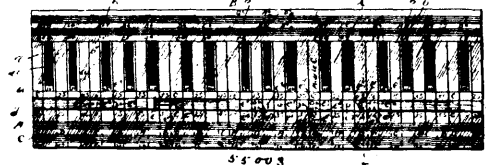
Claim.—1st. The combination with the casing having a cylindrical portion A², a mixing chamber F at the bottom and a feed hopper having a plurality of compartments, such hopper having the discharge mouth, arranged at one side of the vertical axis of the

cylindrical, portion A², of the cylinder B, having a plurality of sets of pockets having their mouths of a width less than the discharge



mouths of the hopper, said pockets having their side and end walls arranged parallel in the direction of their depth, slide members adjustably held in such pockets, a rotary mixer and conveyer H held in the mixing chamber, and means for operating the cylinder and conveyer, substantially as shown and for the purposes described. 2nd. The combination with the casing having feed ways A and A¹ at the upper end, a collecting and mixing chamber at the lower end having a combined mixing and conveyer mechanism, such casing having an intermediate cylindrical chamber, such chamber having covered openings in the ends, of the cylinder B having two or more members B¹, B², each having a series of radial pockets provided with a series of slide receiving grooves, and the slide members b¹, for regulating the depth of the pockets, all being arranged substantially as shown and described.

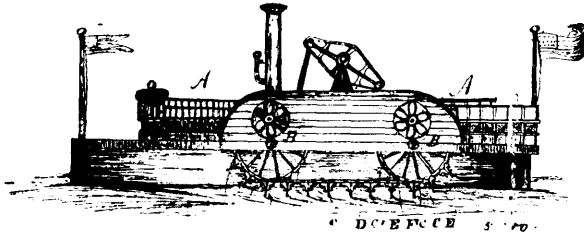
No. 55,003. Music-Chart. (Carte des muigues.)



Franz Mueller, Spokane, Washington, U.S.A., 15th February, 1897; 6 years. (Filed 2nd January, 1897.)

Claim.—1st. A music-chart having spaces indicated thereon representing a portion of a piano-keyboard, and a chord-slide having figures or signs thereon adapted to indicate the chord combinations of each musical key, as set forth. 2nd. A music-chart having spaces indicated thereon representing a portion of a piano-keyboard, and a chord-slide having spaces marked thereon corresponding to said former spaces, and figures or signs in said latter spaces adapted to indicate the chord combinations of each musical key, as set forth. 3rd. A music-chart having spaces thereon representing a portion of a piano-keyboard, spaces below said keyboard and corresponding with said former spaces, signs in said latter spaces indicating the basic key-note of each musical key, a chord-slide also having spaces marked thereon corresponding to said former spaces, signs in the spaces of said chord-slide adapted to indicate the chord combinations of each musical key, and an indicating-point on said slide for indicating the basic key-note of each chord, substantially as set forth. 4th. A music-chart having spaces indicated thereon representing a portion of a piano-keyboard, spaces below said keyboard and corresponding with said former spaces, signs in said latter spaces indicating the basic key-note of each musical key, clefs arranged above and below said keyboard representation and having the note represented by each key indicated thereon, and also its designating-letter, a chord-slide also having spaces marked thereon corresponding to said former spaces, signs in the spaces of said chord slide adapted to indicate the chord combinations of each musical key, and an indicating-point on said slide for indicating the basic key-note of each chord, substantially as set forth. 5th. A music-chart having spaces indicated thereon representing a portion of a piano-keyboard, spaces below said keyboard and corresponding with said former spaces, signs in said latter spaces indicating the basic key-note of each musical key, clefs arranged above and below said key-board and having the note represented by each key indicated thereon and also its designating-letter, spaces corresponding to the keyboard spaces, and having the musical name of each note indicated thereon, a chord-slide also having spaces marked thereon corresponding to said corresponding spaces, signs in the spaces of said chord-slide adapted to indicate the chord combinations of each musical key, and an indicating-point on said slide for indicating the basic key-note of each chord, substantially as set forth.

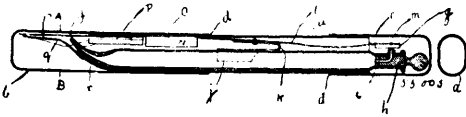
No. 55,004. Endless Band Propeller.
(*Propulseur à chaîne sans fin.*)



James H. Meacham, Petersburg, Virginia, U.S.A., 16th February, 1897; 6 years. (Filed 21st April, 1896.)

Claim.—1st. In a propeller of the class indicated, the combination with sprocket-wheels whose periphery is composed of a continuous series of plane surfaces, each having a tooth or projection, of endless bands having opening to receive said teeth, and a series of paddles attached to bands, and braces for securing them, which braces are provided in their undersides with recesses that coincide with the openings in the bands, substantially as shown and described. 2nd. In a propeller of the class indicated, the combination with sprocket-wheels, endless bands and paddles, of braces or brackets having a vertical arm, and two horizontal arms which are arranged at a right angle thereto, and bolts which secure the brackets and paddles together and to the bands, as shown and described. 3rd. In a propeller of the class indicated, the combination with sprocket-wheels, having peripheral teeth, endless bands having holes as specified and paddles, of brackets or braces made in two parts whose vertical sides are recessed to receive the paddles between them, and whose braces are likewise recessed to receive the teeth of the wheels, as shown and described. 4th. In a propeller of the class indicated, the combination with sprocket-wheels, having peripheral teeth, and intervening recesses or grooves, of endless bands having openings as specified, a series of paddles, and bolts for securing them to said bands, said bolts passing through the bands projecting on the underside and entering said recesses or grooves, in the wheels, substantially as shown and described.

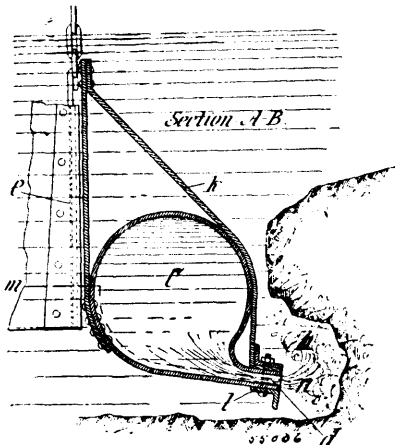
No. 55,005. Fountain Pen. (*Plume-fontaine.*)



Rakyma Moniz Barreto Ivens Ferraz, Travessa, Lisbon, Portugal, 16th February, 1897; 6 years. (Filed 5th November, 1896.)

Claim.—A fountain pen consisting essentially of a tubular casing within which is contained an ink reservoir or tube, one end of which conveys ink to the pen (nib), the emission of ink being brought about by pressing on one end of a spring lever, the other end of which thereupon uncovers an opening for admission of air to the ink reservoir, the whole substantially as described in the specification, and exemplified in the accompanying drawing.

No. 55,006. Dredging Machine. (*Appareil à draguer.*)

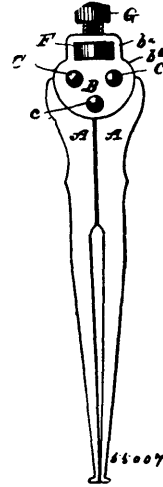


Georg Franz Kretz, Karlsruhe, Baden, Germany, 16th February, 1897; 6 years. (Filed 28th November, 1896.)

Claim.—A scouring dredger, composed of two hydraulic reservoirs *c*, occupying the desired width of channel, attached at an angle, which are furnished with a single row or sundry rows of water-jet nozzles *d*, arranged one behind the other, and movable both in a

vertical and in a horizontal direction, whereby the mud or stuff dredged in a trough or spoil-channel formed between the shoal-bank and the hydraulic reservoir is removed by the active force of the water jets.

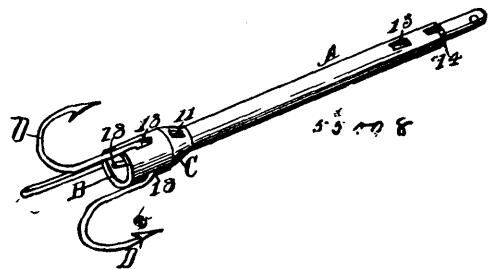
No. 55,007 Caliper. (*Compas d'épaisseur.*)



John N. Peavey, jr., Manchester, New Hampshire, U.S.A., 16th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. In dividers or calipers, an adjusted joint comprising independently pivoted legs provided with a segment of a spur pinion within which the pivot of each is concentric, a threaded stud adapted for longitudinal movement between the pinion portions of said legs, a double rack secured to said stud and engaging the pinion portions of said legs, and a nut threaded to the stud for adjusting the same. 2nd. In dividers or calipers, an adjustable joint comprising a yoke piece carrying independently pivoted legs provided with a segment of a spur pinion within which the pivot of each is concentric, a threaded stud adapted for longitudinal movement between the pinion portions of said legs, a double rack engaging the pinions of said legs and secured to said stud, and a nut resting in slots formed in said yoke and threaded to said stud for adjusting the same. 3rd. In dividers or calipers, an adjustable joint comprising a yoke piece carrying independently pivoted legs having each a segment of a spur pinion within which the pivot is concentric, a threaded stud adapted for longitudinal movement between the pinion portions of said legs, a double rack engaging the pinions of said legs and secured to said stud, and a pair of nuts threaded to said stud, one resting in slots formed for the purpose in the yoke, and the other placed above and adapted to be turned down upon said yoke, all substantially for the purpose set forth.

No. 55,008. Trolling Hook. (*Crochet de tröllée.*)



Allen H. Smith, Cherry Valley, Washington, U.S.A., 16th February, 1897; 6 years. (Filed 2nd January, 1896.)

Claim.—1st. In a trolling hook, the combination, with a casing having slots therein near one of its ends and openings adjacent to the said slots, of a plunger having sliding movement in the said pockets, hooks pivotally attached to the said plunger, the shanks of the hooks passing out through the openings in the casing, and a locking device whereby the plunger may be secured at intervals in its movement to the aforesaid casing, as and for the purpose specified. 2nd. The combination, with a casing having an enlarged head and an inclined neck connecting the head with the body, the head being provided with slots, and the neck with corresponding openings, of a plunger having sliding movement in the casing, and hooks the shanks of which are passed through the slots in the head of the casing and pivotally attached to the plunger, the shanks having an angular formation, as and for the purpose specified. 3rd. The combination, with a casing, having an enlarged head and an inclined neck connecting the head with the body, the head being

provided with the slots and the neck with corresponding openings, of a plunger having sliding movement in the casing, and pivotally attached to the plunger, the shanks having an angular formation, and a locking device, whereby the plunger may be rigidly secured to the casing, as and for the purpose specified. 4th. The combination of a tube having two openings therein, a rod slidable within the tube and a hook having its shank pivotally connected to the rod and passed through one of the openings in the tube, the point of the hook being forced into the remaining opening of the tube upon movement of the rod, substantially as described. 5th. The combination of a tube having an opening therein, a member slidable longitudinally through the tube, and a hook having its shank pivotally connected to the said member, the hook being at all times located out of the tube and having its point forced into the opening of the tube upon the movement of the member within the tube, substantially as described.

No. 55,009. Combination Handle.

(Manche à combinaison.)



Edward J. Durant, Pasadena, California, U.S.A., 16th February, 1897; 6 years. (Filed 24th December, 1896.)

Claim.—1st. A combination handle, comprising a stone lid lifter tongue, connected with two oppositely extending pockets or receptacles for the edge of dishes and bails respectively. 2nd. The herein described combination handle, formed from a single piece of wire, or a single piece of sheet metal, bent into a forwardly projecting tongue, upwardly projecting loops, downwardly projecting connected with the lateral or large part of the handle. 3rd. The herein described combination handle made from a single piece of wire is bent into a tongue 1, upwardly extending loops 2 and 3, downwardly extending loops 5 and 6 and laterally curved into the larger part of the handle 8 with the ends of the wire curved together and fastened.

No. 55,010. Ratchet Wrench. (Clé à écrou à rochet.)



Albert Willows, Redlands, California, U.S.A., 16th February, 1897; 6 years. (Filed 28th December, 1896.)

Claim.—1st. A wrench comprising the bifurcated handle having co-axial journal-bearings in its arms, an annular ratchet-head arranged between the arms and journalled in the journal-bearings thereof, a wrench-head arranged to extend through the annular ratchet head and project on both sides of the handle, and provided at one end with a shoulder to engage one side of the handle or ratchet-head and provided at the other end with an encircling groove, and so connected with the ratchet-head that it will not rotate with relation thereto, a dog pivoted to the handle and arranged to fit in the groove, and the click fastened to the handle and arranged to engage the ratchet-head. 2nd. The combination of the bifurcated handle having co-axial journal-bearings in its arms, the ratchet-head arranged between the arms and journalled in the journal-bearings thereof, the V-shape click provided with an eye at its point and adapted to alternately engage the notched portion of the ratchet-head with its opposite arms, the rivet inserted through the eye to secure the arms of the handle and to pivot the click in place, the springs arranged to engage the opposite arms of the click, the cam adapted to be thrown to alternately engage the springs and press them respectively from their respective click-arms, and the stem for operating the cam fastened to the cam and pivoted in the arms of the handle. 3rd. A ratchet-wrench comprising the combination of the handle, the annular ratchet-head journalled in such handle and provided with a central circular opening, the wrench-head arranged to fit in the circular opening

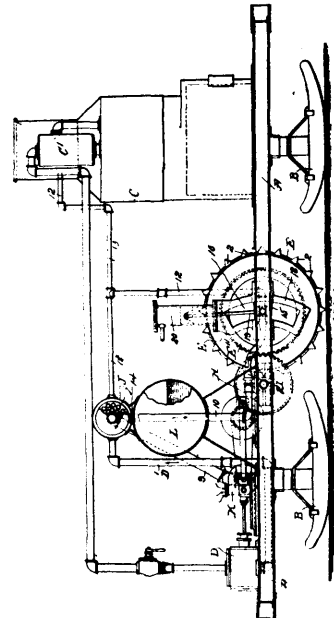
and to extend through the ratchet-head, and provided at one end with a shoulder and at its other end with an encircling groove, a pivoted dog arranged to enter the groove in the wrench-head, the wrench-head and the ratchet-head being provided, one with a notch and the other a tooth arranged to enter the notch when the wrench-head is secured in place by the dog.

No. 55,011. Method of Preventing the Putrefaction of Blood. (Méthode d'empêcher la putréfaction du sang.)

Fritz Wilhelm Friderichsen, Copenhagen, Denmark, 16th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—The method of preventing the putrefaction of blood by adding a suitable quantity of molasses, viz.: the raw-syrup from the manufacture of beet-root and cane sugar, to the blood and using the mixture in a dry, moist or liquid state, either alone or in combination with ordinary forages such as oil-cakes, refuse from corn, oats, barley, turf and similar substances, the blood being, if required, previously boiled, coagulated or freed from any impurities contained therein, from the blood-serum, the blood-fibres or the blood-water.

No. 55,012. Snow Locomotive. (Locomotive à neige.)

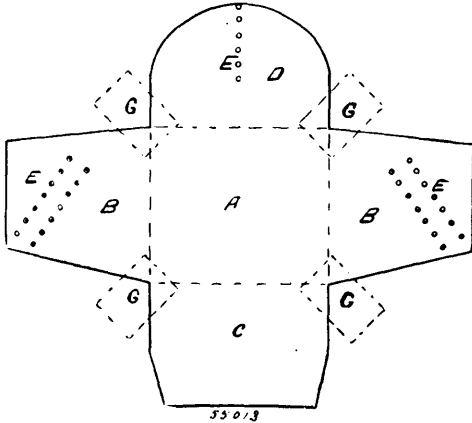


Byron F. Glover, Chicago, Illinois, U.S.A., 16th February, 1897; 6 years. (Filed 16th January, 1897.)

Claim.—1st. The combination, in a snow locomotive, of a hollow traction wheel, and means for supplying heated air connected with the traction wheel so as to communicate with the interior thereof, as set forth. 2nd. The combination, in a snow locomotive, of a hollow traction wheel, means for supplying heated air connected therewith, and a furnace or the like which is connected with the traction wheel so as to receive the air issuing from the latter, as set forth. 3rd. The combination, in a snow locomotive, of a hollow traction wheel and a fan or blower connected with the traction wheel so as to communicate with the interior thereof, as set forth. 4th. The combination, with the hollow traction wheel in a snow locomotive, of an air heater connected therewith and a fan or blower connected with the air heater, as set forth. 5th. The combination, with the furnace and boiler, the steam engine and the hollow traction wheel in a snow locomotive, of an air heater which is provided with an air connection adapted to communicate with the interior of the traction wheel and is connected with the engine so as to receive the exhaust therefrom and with the furnace so as to increase the draft therein, as set forth. 6th. In a snow locomotive, the traction wheel mounted in substantially vertical guide-ways, as set forth. 7th. In a snow locomotive, the traction wheel mounted in journals which are arranged to slide in circular guideways. 8th. In a snow locomotive, the traction wheel gear connected with a driving shaft and mounted in journals which are arranged to slide in guideways formed by arcs of circles having said shaft as centre, and which are connected with the piston rods of suitable pressure cylinders, substantially as described. 9th. The traction wheel constructed with a series of peripheral seats having longitudinal inwardly inclined faces rising therefrom, and provided with removable teeth having sides adapted to fit between the inclined faces of the seats, as set forth. 10th. The traction wheel provided with peripheral seats having inwardly inclined longitudinal faces rising therefrom, and provided with removable teeth constructed with three longitudinal sides which are substantially equal in width and which are adapted to fit upon said

seats between the inclined faces thereof, as set forth. 11th. The traction wheel constructed with peripheral seats situated below the outer edge of the periphery and having inwardly inclined longitudinal faces rising therefrom, and provided with removable teeth having sides adapted to fit between the inclined faces of said seats, as set forth.

No. 55,013. Parcel Wrapper. (*Enveloppe pour paquets.*)

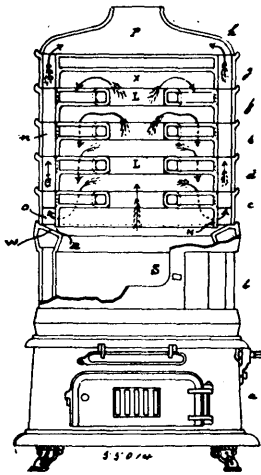


Thomas Henry Martin, Peterboro, Ontario, Canada, 16th February, 1897; 6 years. (Filed 5th January, 1896.)

Claim.—1st. The combination in a parcel wrapper A having fly pieces G, G, G, G, folds B, B, C, D, with holes E, E, substantially as and for the purpose herebefore set forth. 2nd. The combination with the parcel wrapper A having fly pieces (G, G, G, G, folds B, B, C, D, with holes E, E, of the clasp F and loop I, I, substantially as and for the purpose herebefore set forth.

No. 55,014. Hot Water and Steam Boiler.

(*Chaudière à eau chaude et vapeur.*)

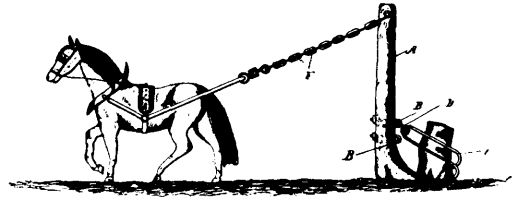


Eugene Salomon Manny, Montreal, Quebec, Canada, 16th February, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. In a hot water or steam boiler, the combination of any number of perforated sections, C, D, E, F, figure 1, with a top section G, having openings in connection with flue M, but none leading to smoke flue P, or connecting with hot chamber L and X, substantially as and for the purpose herebefore set forth. 2nd. In a hot water or steam boiler the sections C, D, E, F, figures 1, 2, 3 and 4, having fire openings through their thickness, marked L for the centre, and K for the outside ones, in combination with the outside openings M, these latter going through the thickness of the sections and the rings Z, including top section, figures 5 and 6, substantially as and for the purpose herebefore set forth. 3rd. In a hot water or steam boiler, the combination with the first section C, figure 1, of the ring N, making the circular collecting flue O, the same bringing in connection the down-circulating opening K, and the air-tight vertical flue M, substantially as and for the purpose herebefore set forth. 4th. In a hot water or steam boiler, the top edge N, of the fire pot B, bevelled inward in combination with the ring N, of section C, making the opening R, and permitting the easy cleaning of flue O, substantially as and for the purpose herebefore set forth.

No. 55,015. Stamp Extractor.

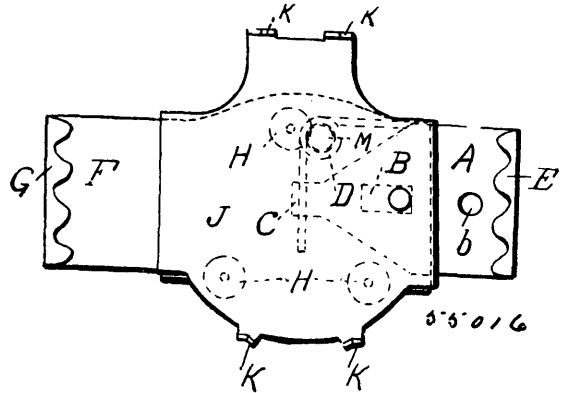
(*Machine pour arracher les souches.*)



Norbert Champagne, Saint-Monique, Québec, Canada, 16 février 1897; 6 ans. (Déposé le 15 janvier 1897.)

Résumé.—Un appareil pour extraire les souches comprenant un levier A (constitué par un tronc d'arbre pourvu de deux racines formant fourche), auquel sont fixées des crampes B, près de l'une de ces extrémités, une chaîne E, à l'autre, et un fort crochet C, pouvant être relié à l'une des crampes B, au moyen d'une maille D, le tout tel que décrit et pour les fins indiquées.

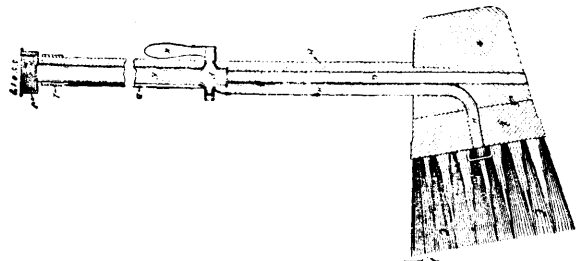
No. 55,016. Ice Créper. (*Grappin.*)



Godfroid Lebel, Montréal, Québec, Canada, 16 février 1897; 6 ans. (Déposé le 16 janvier 1897.)

Résumé.—La combinaison dans un grappin d'un lien mobile contourné et dentelé à un bout, percé d'une ouverture dans laquelle s'engage un rivet réunissant deux plaques, munie d'une projection sur laquelle donne l'extrémité d'un ressort retenu par une projection M, et dont l'autre extrémité appuie sur le bord élevé de la plaque inférieure qui est elle-même munie de projections coniques en dessous, ayant deux de ses bords contournés en forme de boîte et l'une de ses extrémités contournée et dentelée de manière à former lien. Le tout recouvert d'une plaque munie de deux, trois ou plusieurs projections, et réuni à la plaque inférieure au moyen de rivet, le tout tel que montré et pour les fins indiquées.

No. 55,017. Brush for Washing Windows, Carriages, etc. (*Brosse pour le lavage de vitraux, voitures, etc.*)



Isaïe Belair et Nazaire Bouvier, tous deux de Montréal, Québec, Canada, 16 février 1897; 6 ans. (Déposé le 13 janvier 1897.)

Résumé.—La combinaison du manche creusé B, du tube E, muni du robinet F et de la pièce mobile J, des branches G et H, avec la tête A composée des deux parties a et b, la partie b, étant pourvue de la pièce D et des soies C, le tout tel que décrit et pour les fins spécifiées.

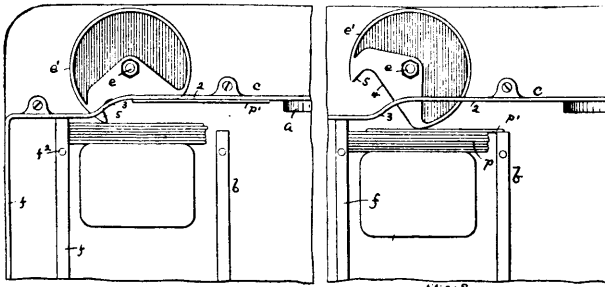
No. 55,018. Mail Marking Machine.

(*Machine à marquer la malle.*)

Henry Edward Waite, Newton, Massachusetts, U.S.A., 18th February, 1897; 6 years. (Filed 8th January, 1897.)

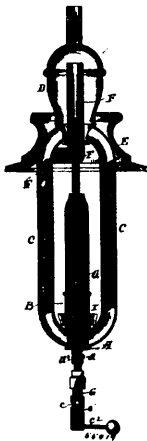
Claim.—1st. In a mail marking machine, the combination of a carrier for conveying the letters in a predetermined path, a fixed

guide having a portion which extends beside said path, and a rotary packer having a cylindrical periphery containing a recess, one side



of which coincides with the straight portion of the guide at a given point in the rotation of the packer, and another side which at said point extends across the letter path. 2nd. In a mail marking machine, the combination of a carrier adapted to convey letters endwise in a predetermined path, a fixed guide having a straight portion which extends beside said path, an oblique portion which extends obliquely across the letter path, and a straight portion parallel to the other straight portion, a rotary packer having a cylindrical periphery containing a recess one side of which coincides with the straight portion of the guide at a given point in the rotation of the packer, and another side which at said point extends across the letter path, a pack receiving a bed or table extending from said guide, and an abutment on said table, adjustable relatively to the packer and to the oblique portion of the fixed guide.

No. 55,019. Lamp. (Lampe.)

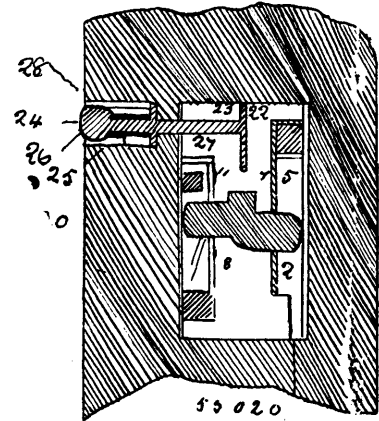


J. Wesley Allison, New York, State of New York, assignee of George Washington, Brussels, Belgium, 18th February, 1897; 6 years. (Filed 31st December, 1896.)

Claim.—1st. In a lamp, the combination with an incandescent burner, of a vaporizing tube adjacent to the burner, a mixing chamber for mixing air and vapour, and a pipe for conveying mixed air and vapour to the burner. 2nd. In a lamp, the combination with a burner, of a removable vaporizing tube adjacent to the burner, and a pipe for conducting the vapour to the burner. 3rd. In a lamp, the combination with a burner, a mixing chamber, and a pipe leading from the mixing chamber to the burner, of a removable vaporizing tube adapted to discharge the vapour into the mixing chamber. 4th. In a lamp, the combination with a burner, a mixing chamber having air induction opening and a pipe connecting the mixing chamber and a burner, of a removable vaporizing tube adapted to discharge into the mixing chamber. 5th. In a lamp, the combination with a burner, a mixing chamber, air induction pipe leading into the mixing chamber, a hood supported by the air induction pipe and surrounding the lower end of the mixing chamber, and a pipe leading from the mixing chamber to the burner, of a vaporizing tube located in close proximity to the burner and discharging into the air induction pipe. 6th. In a lamp, the combination with a base having a plurality of burners, a mixing chamber and pipes connecting the mixing chamber and base, of a straight vaporizing tube passing through the base and discharging into the mixing chamber, substantially as set forth. 7th. In a lamp, the combination with a base having a plurality of burners, a mixing chamber and pipes connecting the mixing chamber and base, of a straight vaporizing tube passing through the base and discharging into the mixing chamber. 8th. In a lamp for burning petroleum vapour, the combination with a burner, a mixing chamber and a pipe connecting the mixing chamber and burner, of a removable vaporizing tube adapted to discharge the vapour into the mixing chamber, a needle valve in the vapourizing tube and means for actuating said

valve. 9th. In a lamp for burning petroleum vapour, the combination with a base, a burner, a mixing chamber and a pipe connecting the mixing chamber and base, of a vaporizing tube detachably secured to the base and adapted to discharge the vapour into the mixing chamber. 10th. In a lamp, the combination with a base, a burner thereon, a mixing chamber and a pipe connecting the mixing chamber and case, of a vaporizing tube detachably secured to the base and adapted to discharge the vapour into the mixing chamber, and a valve in said tube and means carried by the tube for operating the valve, substantially as set forth.

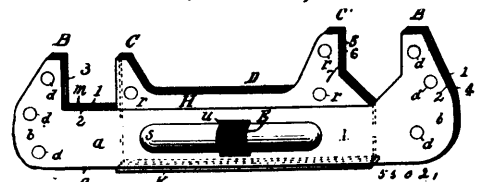
No. 55,020. Sash Lock. (Arrête-croisée.)



Isabella Crichton and James W. Crichton, both of Halifax, Nova Scotia, Canada, assignees of David Arthur Crichton, Los Angeles, California, U.S.A., 18th February, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—1st. A double lock for sash-fasteners, consisting of two separate bolts and bolt operating mechanisms mounted in separate frames parallel to each other, one edge and one face of each frame being composed of a single plate having bent-up sides and the balance of each frame being composed of a single plate of metal secured to the first named plate, substantially as described. 2nd. A double lock for sash-fasteners, consisting of two frames mounted on the common plate which forms a side and edge of each frame, a bolt and spring-actuated bell crank lever in each frame and a T-shaped key-bar located between the two frames whose ends project through slots in the adjacent inner sides of said frames and engage said bell-crank levers in opposite directions, as set forth. 3rd. A sash fastener comprising a case, a bolt therein, a spring-actuated bell-crank lever fulcrumed in the frame with one end engaging the bolt to throw the same, the case having an opening opposite the short arm of said lever, and the T-shaped key-bar having an end projecting through the said slot and engaging the short arm of the bell-crank lever to withdraw the bolt, substantially as described. 4th. In combination, the sashes having side racks, the casings mortised to hold the locks, a double lock in said mortise consisting of parallel frames mounted on a single plate, spring-impelled bolts in said frames, a T-shaped key-bar whose ends project within both frames to withdraw said bolts, having its stem bent at right angles to its ends, and a push-bar engaging said stem, substantially as set forth. 5th. The combination of the push-bar having the enlarged portion, the end knob, and the annular flange, with the casing having a bore with a bushing therein, said bushing being of a diameter greater than any portion of the bar, except the flange, which is slightly greater in diameter than the inside of the bushing, substantially as and for the purpose set forth.

No. 55,021. Wrench. (Clé à écrou.)

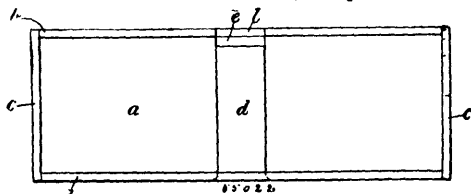


William Otterbein Gottwals, Washington, Columbia, assignee of Frederick L. Ellis, Milldale, Connecticut, both in the U.S.A., 18th February, 1897; 6 years. (Filed 21st December, 1896.)

Claim.—1st. In a wrench, the combination of a bar having fixed jaws at the ends, a slide, carrying the movable jaws on its opposite ends, which is connected with the bar between the fixed jaws by means of a tongue passed through a slot and a flange plate fastened to the underneath edge of the said tongue, the slide and flange plate resting against opposite edges of the bar, whereby the movable jaws are provided with double bearings for the entire distance between

them, a screw shaft connected with the tongue of the slide and a nut mounted on the said shaft and projecting through slots in the bar for operating the slide and adjusting the movable jaws, substantially as described. 2nd. A wrench having the fixed members (the bar and fixed jaws) and the movable members (the slide and movable jaws) made up of sections stamped out of sheet or plate metal (rolled steel) and the sections riveted together to form the two members, substantially as described. 3rd. In a wrench, the combination of a bar having fixed jaws at both ends and a longitudinal slot between the jaws, and a slide also having jaws at both ends, the slide resting on the upper edges of the bar, and having a tongue which projects through the slot in the bar and is connected with a plate which bears against the underneath edges of the bar, a screw shaft inserted in an opening in the tongue and a thumb nut on the said screw shaft that projects through slots in the sides of the bar for convenience of manipulation whereby when the nut is turned it moves the screw shaft and with it the slide to adjust the movable jaws relatively to the fixed jaws, but is prevented by the ends of the slot from advancing, substantially as described. 4th. In a wrench, the combination of a bar having at each end thereof a jaw, and a slide intermediate the said jaw, such slide being provided at each end thereof with a jaw, substantially as described. 5th. In a wrench, the combination with a bar having a fixed jaw at each end thereof, of a slide provided at each end thereof with a jaw and means for moving said slide, substantially as described. 6th. The combination in a wrench, of a bar or frame on which there is a jaw, a slide on which there is a jaw and a screw for moving said slide, this screw being located in said slide between the opposite ends thereof and also placed in said bar, substantially as described. 7th. In a wrench in combination, a bar on which there is a jaw, a slide on which there is a jaw, a screw located between the opposite ends of the said slide, and thumb nut loosely placed on said screw, said nut being in contact with said bar, substantially as described. 8th. In combination in a wrench, a bar on which there is a jaw, a slide on which there is a jaw and a screw for moving said slide, the said bar being provided with grooves for the reception of said screw, substantially as described. 9th. In combination in a wrench, a bar on which there is a jaw, a slide on which there is also a jaw, a screw carried by said slide and a thumb nut loosely placed on said screw, the said bar having grooves for the reception of said screw and slots in which said nut is in contact therewith, substantially as described. 10th. The combination in a wrench, of a bar on which there is a jaw and a slide on which there is also a jaw, there being on a portion of said slide a plate in contact with said bar and the said portion of the said slide being upset so as to hold said part thereon, substantially as described. 11th. In a wrench, the combination of a bar having a fixed jaw at one or both ends, a movable jaw at one or both ends of a slide connected with the bar by a tongue inserted in a groove in the said bar, a screw-driver blade connected with the end of the slide adjacent to the fixed jaw, and in line with a groove in the same, and means for moving the said slide, whereby the screw-driver blade can be moved out of the case formed by the groove when the slide is moved towards the fixed jaw and drawn into the case when the slide is moved in the opposite direction, substantially as described. 12th. In a wrench, the combination of a bar having a fixed jaw at one or both ends thereof, a slide also carrying a movable jaw at one or both ends, spanner pins inserted in the co-acting fixed and movable jaws and means for operating the slide to adjust the co-acting jaws and spanner pins to accommodate them to the objects to be caught and turned or held, substantially as described. 13th. In a wrench, the combination of a bar having fixed jaws at both ends thereof, the bar and jaws made up of three sections riveted together, the middle sections being continuous with the jaws whereby a groove is formed between the bar sections, a slide having jaws at both ends, also made up of three sections the middle section extended and forming a tongue which is inserted in the groove in the bar and held therein by the outside sections, bearing against the upper edges of the bar and a flange plate fastened to the bottom of the tongue and bearing against the underneath edges of the bar, a screw shaft fastened in a slot in the tongue between the sides of the bar and a thumb nut thereon which projects through slots in the sides of the bar, and a screw-driver blade dovetailed in one end of the slide and projecting into a slot in the adjacent fixed jaw and adapted to be moved in and out of the slot by means of the slide and the screw shaft and nut for operating the same, substantially as described.

No. 55,022. Knife Cleaner. (*Nettoyeur de couteaux.*)



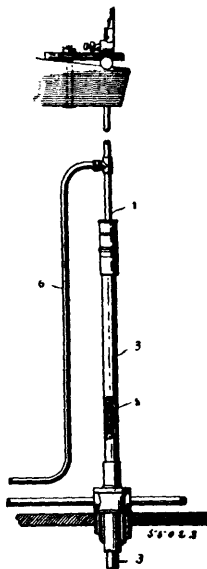
George Herbert Ellis, Neasden, Middlesex, England, 18th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. In a knife cleaner, the combination of a wood tray *a* raised sides *b*, ends *c*, cork platform *d*, gap *l*, bevelled edge *e*, slot *f*,

and spikes *g*, substantially as herein described and according to figs. 1, 2, and 3 of the accompanying drawing. 2nd. In a rubber for a knife cleaner, the combination of a hard rolled metal curved or convex base *j* with vertical levers *i* fixed to a handle *h* by nails or screws, and the rubber *k* of leather, substantially as herein described and according to figs. 4 and 5 of the accompanying drawing. 3rd. In a knife cleaner, the combination of the oblong tray and the flexible metal rubber constructed in the manner described in this specification for the purpose specified.

No. 55,023. Means for Pumping Oil Wells.

(*Pompe pour puits à huile.*)



William Connelly, Toledo, Ohio, U.S.A., 18th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. In a means for steaming oil wells, a polished rod, sucker rod sections provided with a longitudinal bore, coupling devices between the same provided with a longitudinal bore and an opening communicating with the bore and the exterior of the sucker rod within the well. 2nd. In a means for steaming oil wells, a polished rod provided with a longitudinal bore, a hollow plug communicating with the bore and the exterior of the polished rod, tubular sucker rod sections secured together and to the polished rod through the medium of interposed couplings, said couplings provided with a longitudinal bore in communication with the bore of the polished rod and sucker rod sections respectively, and communicating with the bore and the exterior of the sucker rod sections within the well. 3rd. In a means for steaming oil wells, a coupling for tubular sections comprising two tubular attachable sections formed with inversely tapered openings, tubular sections formed with inversely tapered openings, tubular sections in the openings and tapered plugs inversely located in the ends of the tubular sections and forced therein to a degree to expand the sections to the taper of the coupling sections, and means for holding the plugs in position when the coupling sections are secured together. 4th. In a means for steaming oil wells, tubular sections of sucker rod and couplings interposed between the sections comprising coupling sections, tapered plugs secured within the coupling sections for expanding and securing the ends of the sucker rod sections within the coupling sections, the plugs being provided with a longitudinal bore.

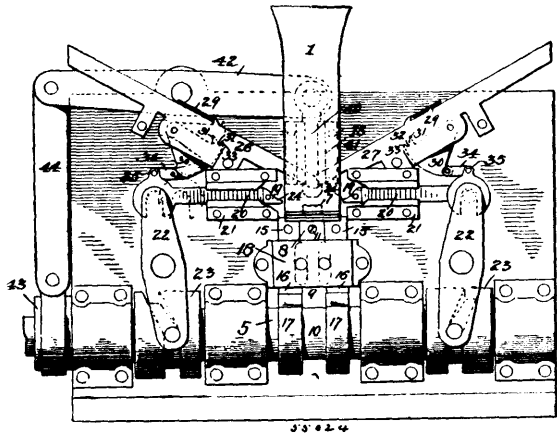
No. 55,024. Machine for Making Clinch Loops.

(*Machine pour faire des étalingures de ganse.*)

Ellis Spear and F. L. Middleton, Washington, Columbia, assignees of Alonzo Louis Sweet, Chicago, Illinois, both in the U.S.A., 18th February, 1897; 6 years. (Filed 17th July, 1895.)

Claim.—1st. In a machine for making clinch loops, a loop stick or mandrel, means for feeding the loop blanks thereto, a clamping head, bending up heads with means for operating the same, heads for engaging the upturned ends of the blank and bending the same inwardly, clinching mechanism and staple feed mechanism, substantially as described. 2nd. In combination, in a machine for making clinch loops, a loop stick or mandrel, means for feeding the loop blanks thereto, means for bending the blank about the mandrel and staple feed and staple driving mechanism, substantially as described. 3rd. In combination, a loop stick, a clamping head and means for operating the same to hold the loop blank on the underside of the stick, turning up heads with means for raising the same along the sides of the loop stick, turning in heads with means for operating them, staple feed mechanism and staple driving mechanism, substantially as described. 4th. In combination, a loop stick, means for bending the blank about the same, means for feeding

staples to the opposite ends of the loop blank, and means for driving said staple, substantially as described. 5th. In combination, the



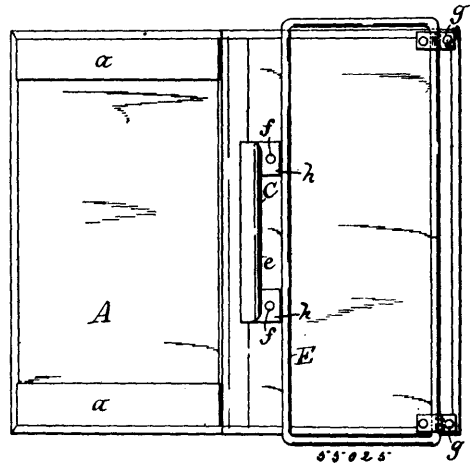
loop stick or mandrel, means for bending the blank about the same, a pair of race-ways having their lower ends extending to the ends of the blank, means for feeding the staples and staple driving mechanism operating at the ends of the race-ways, substantially as described. 6th. In combination with a mandrel, the blank bending mechanism comprising the vertically moving heads 15, the heads 19 for bending the blank over the top of the loop stick, race-ways over the loop stick for directing the staple to the opposite ends of the loop, and the drivers 39 for driving the staple, substantially as described. 7th. In combination, in a clinch loop machine forming mechanism for the loop, means for feeding the staple thereto, comprising the race-ways having the hooks, the guards 29, and the feed fingers for lifting the staples between the said guards and hooks to discharge the same over the hooks, substantially as described. 8th. In combination, a forming mechanism for the loops, the staple guiding means comprising the race-way, the hooks thereon, and the feeding finger, with means for operating the same to lift the staple from the hook, substantially as described. 9th. In combination, the loop forming mechanism, the staple race-way having the hooks, the lifting finger 31, for lifting the staple over the hook, and the finger 33 for retaining the staple until the said finger is retracted, substantially as described. 10th. In combination, the forming mechanism for the loop, the race-way having a recess therein and hook 38, a guard 29, and a lever 30 having a finger 31, operating in said recess to lift the staple over the hook, substantially as described. 11th. In combination, the mandrel, the loop forming mechanism comprising the plunger 20 for bending the loop blank, the lever 22 for operating the plunger, the race-way for the staples, the lever 30 having the feed finger 31, and the connection between the said lever 30 and the plunger 20, substantially as described. 12th. In combination, the mandrel, the clamp 8, moving vertically, the heads 15, 17 for bending the blank, moving vertically, the plungers 20 for turning in the blank and movable horizontally, the shaft 5, the cams 10, 17 on said shaft for operating the clamp and the heads 15, the cams 23 also on said shaft, and the levers 22, operated thereby for operating the plungers 20, substantially as described. 13th. In combination, in a staple driving mechanism, the race-way, the plunger operating directly across the end thereof and acting as a staple feed or cut off, and guiding means to hold and guide the staple in driving the same, substantially as described. 14th. In combination, in a staple driving mechanism, the race-way, the plunger and the guide block having movement towards and from the work to be stapled, substantially as described. 15th. In combination in a staple driving mechanism, the race-way, the plunger and the guide block movable with the driving plunger, substantially as described. 16th. In combination in a staple driving mechanism, the race-way, the plunger and the guide block having the vertical guiding opening and the lateral pocket, substantially as described. 17th. In combination, the plunger, the race-way and the guiding block having a sliding connection with the plunger and operated thereby, substantially as described.

No. 55,025. Memorandum Book. (Livre de notes.)

The Carter Crume Co., Niagara Falls, New York, U.S.A., assignee of Isaac Moore, Toronto, Ontario, Canada, 18th February, 1897; 6 years. (Filed 2nd July, 1895.)

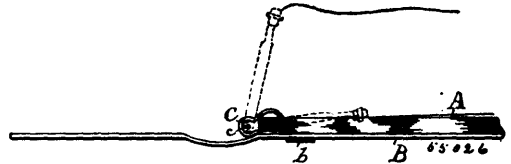
Claim.—1st. In a copying-book, the combination with a tablet or series of leaves bound together, of a cover, a spring clamp having substantially a C shape in cross-section and secured to the cover, to hold the tablet to the cover, a rectangular frame pivoted on one side near the edge of the cover and adapted to lie with its opposite side near the clamp, and a carbon sheet attached to the side of the same near the clamp, substantially as shown and described. 2nd. In a copying-book, the combination with a tablet or series of leaves bound together by staples c, c, of a cover, a spring clamp having substantially a C shape in cross-section and secured to the cover,

ears at each end of the clamp to hold the tablet to the cover, a rectangular frame pivoted on one side near the edge of the cover and



adapted to lie with its opposite side near the clamp, and a carbon sheet attached to the side of the frame near the clamp, substantially as shown and described. 3rd. In a copying-book, the combination with a series of originals, duplicates and stubs separated by lines of perforations d, and d', the stubs being suitably bound together, of a cover, a spring clamp formed of one piece of sheet metal and secured to the cover to bind the said stubs to the latter, eyes secured to the inner side of the cover at two corners thereof, a swinging frame of rectangular shape having one of its sides pivoted in said eyes, and a carbon sheet secured to the opposite side of the frame, substantially as described and shown. 4th. In a copying-book, the combination with a tablet or series of leaves bound together, of a cover, a spring clamp having substantially a C shape in cross-section and secured to the cover, to hold the tablet therein, a rectangular frame pivoted to the cover, and a carbon sheet attached to one side of the frame, as and for the purpose described.

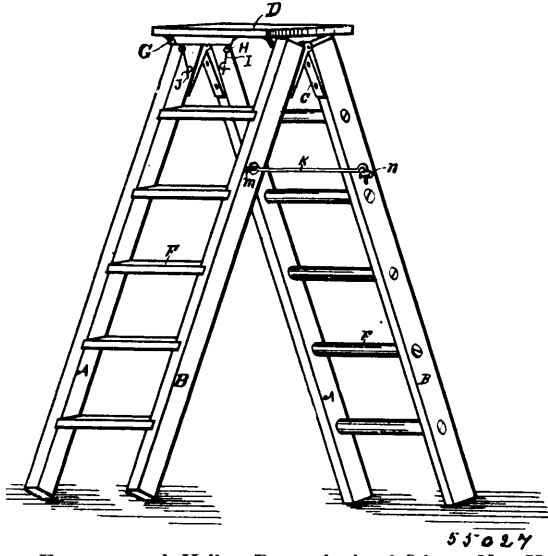
No. 55,026. Copying Book. (Livre à copier.)



The Carter Crume Co., New York, U.S.A., assignee of Isaac Moore, Toronto, Ontario, Canada, 18th February, 1897; 6 years. (Filed 28th September, 1896.)

Claim.—1st. In a copying book, the combination with a cover, a series of memorandum leaves bound together and held in said cover, and the carbon sheet, of a frame hinged to the cover, and a clamp for the carbon sheet on one side of the frame, said frame having extensible sides for moving the carbon sheet toward and from the hinged ends of the frame, as and for the purpose described. 2nd. In a copying book, the combination with a cover, a series of memorandum leaves bound together and held by a clamp to said cover, and the carbon sheet, of a swinging rectangular frame pivoted to the cover, and a clamp on the free side of the frame to hold the carbon sheet, said frame having tubular and extensible sides whereby the clamp for the carbon sheet may be moved to different distances from the pivotal points of the frame, as set forth. 3rd. In a copying book, the combination with a cover, a series of memorandum leaves bound together and held in said cover, and a carbon sheet, of a swinging rectangular frame having three sides hinged at its ends to the cover, a clamp for the carbon sheet on the free side of the said frame, the other sides of the frame being extensible and comprising tubular parts and solid parts movable in the tubular parts, as set forth. 4th. In a copying book, the combination with a cover, a series of memorandum leaves bound together and held in said cover, and a carbon sheet, of a pair of tubes hinged to the cover, a rectangular rod extending between the said tubes and having its ends entering the tubes to slide therein, grooves in the ends of the rod, pins passing through the sides of the tubes and entering the grooves to form stops, and springs within the tubes to move the parts within the tubes, as set forth. 5th. In a copying book, the combination with a cover, a series of memorandum leaves bound together and held in said cover, and a carbon sheet, of a pair of tubes hinged to the cover, a rectangular rod extending between the said tubes and having its ends entering the tubes to slide therein, coiled springs to operate the parts and a hinged clamp to engage the central portion of the rod extending between the tubes to secure the edge of the carbon sheet, substantially as described and shown.

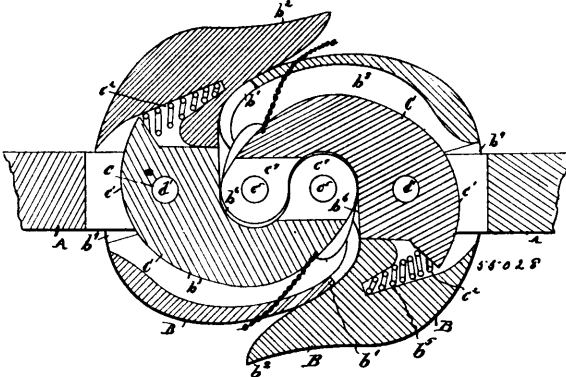
No. 55,027. Combination Ladder.
(Echelle à combinaison.)



James Furgason and Hellen Bower, both of Odessa, New York, U.S.A., 18th February, 1897; 6 years. (Filed 8th January, 1897.)

Claim.—The combination of two ladder-sections hinged together at their adjacent ends, a platform, and means whereby said platform is adapted to be adjusted to be used as such at the tops of the folded sections or to be placed across the meeting ends of the sections when straight and brace them together, substantially as described.

No. 55,028. Car Coupler. (Attelage de chars.)

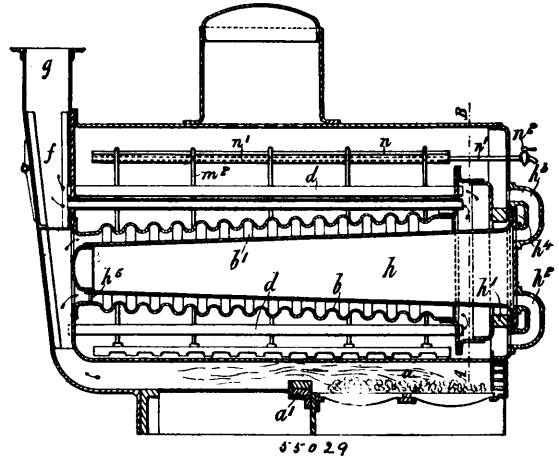


Philo Campbell Ewart, Cincinnati, Ohio, U.S.A., 18th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith, and a coupling hook pivoted to the stem and adapted to swing relatively to the head and stem, substantially as and for the purpose set forth. 2nd. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith, a socket in the wall of the buffer head, and a coupling hook pivoted to the stem and adapted to take into the socket, substantially as and for the purpose set forth. 3rd. In a car coupler, the combination of a stem, a buffer head pivoted thereto, an opening in the buffer head, projections on the stem adapted to take into the opening, a coupling hook pivoted to the projections, and a pin adapted to secure the buffer head and the coupling hook to the stem, combined and arranged substantially as and for the purpose set forth. 4th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith and free to swing laterally in one direction and not in the other, and a coupling hook adapted to swing relatively to the head, substantially as and for the purpose set forth. 5th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith and free to swing laterally in one direction but not in the other, and a coupling hook pivoted to the stem and adapted to swing relatively to the head, substantially as and for the purpose set forth. 6th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith, a coupling hook adapted to swing relatively to the buffer head, and hook guards and a guide arm on the buffer head extending to or beyond the arc of travel of the hook, substantially as and for the purpose set forth. 7th. In a car coupler, the com-

bination of a stem, a buffer head pivotally connected therewith, a coupling hook pivoted to the stem, and a spring normally holding the coupling hook in its position of engagement substantially as and for the purpose set forth. 8th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith, a coupling hook pivoted to the stem, a tapering socket in the buffer head, and a spiral spring seated therein and taking against the shank of the coupling hook, substantially as and for the purpose set forth. 9th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith, a coupling hook adapted to swing relatively to the head, and means for locking the buffer head against lateral movement, substantially as and for the purpose set forth. 10th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith and adapted to swing laterally in one direction but not in the other, a coupling hook adapted to swing relatively to the head, and means for locking the buffer head against lateral movement, substantially as and for the purpose set forth. 11th. In a car coupler, the combination of a stem, a buffer head pivotally connected therewith and adapted to swing laterally in one direction but not in the other, a coupling hook adapted to swing relatively to the head, and a wedge-shaped block adapted to lock the buffer head against lateral movement, substantially as and for the purpose set forth.

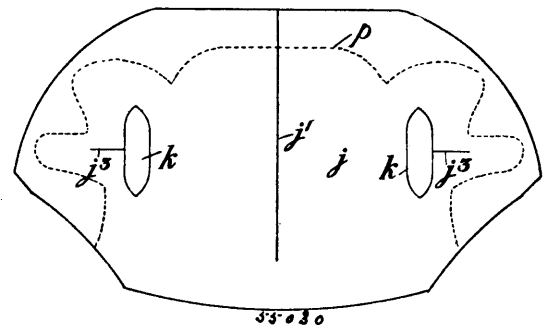
No. 55,029. Steam Boiler. (Chaudière à vapeur.)



John Edward Friend, Lambton Quay, Wellington, New Zealand, 18th February, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. In a steam boiler, a conical flue in combination with a correspondingly conical water tube having communication with the boiler by means of connecting pipes, substantially as and for the purposes set forth herein. 2nd. In a steam boiler, in combination, a flue, water tube, and connecting pipes, combustion chamber and tubes, substantially as and for the purposes set forth herein. 3rd. In a steam boiler, a regulating nozzle for burning a mixture of gas and air, substantially as and for the purposes set forth herein. 4th. In a steam boiler, in combination, a flue, water tube, and connecting pipes, combustion chamber and tubes, and a gas nozzle, substantially as and for the purposes set forth herein. 5th. In a steam boiler, the apparatus for removing sediment from the bottom, consisting of troughs, tubes, and pockets, substantially as and for the purposes set forth herein. 6th. The improvements in steam boilers constructed, arranged and operating, substantially as and for the purposes set forth herein, and illustrated on the accompanying drawing.

No. 55,030. Skirt Attachment for Lady Cyclists.
(Attache de jupes.)

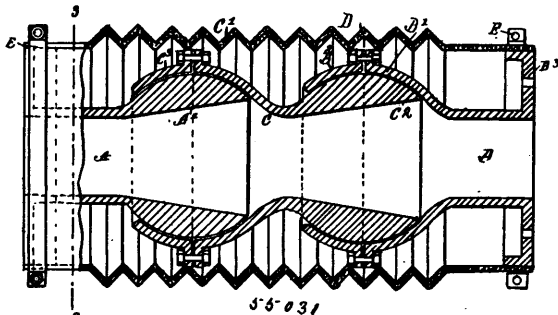


Charles Bristow, Wellington, New Zealand, 18th February, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—1st. A skirt attachment whereof the central portion is prevented from sagging by a spring and gusset, substantially as an

for the purposes set forth herein. 2nd. A skirt attachment whereof the central portion is prevented from sagging by a spring and gusset, and the dust excluded by an elastic band k^1 and gusset j^4 , substantially as and for the purposes set forth herein. 3rd. A skirt attachment whereof the central portion is supported by hooks and eyes attached to elastic springs and depending from a band attached to the lining of the skirt, and supported at the back by a band g , and at the sides by garters and loops, substantially as and for the purposes set forth herein. 4th. A skirt attachment whereof the central portion is provided with a gusset and elastic spring and braces m to prevent the material from being split, substantially as and for the purposes set forth herein. 5th. A hook made with an extension partially surrounding its stem to prevent the eye from disengaging except at the will of the operator, substantially as and for the purposes set forth herein. 6th. A skirt attachment ornamented with lace and the like to hide the ankles without impeding the pedalling, substantially as and for the purposes set forth herein.

No. 55,031. Flexible Pipe Joint. (*Joint de tuyau flexible.*)

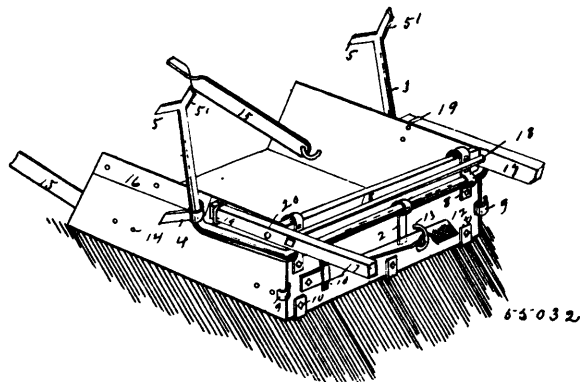


Andrew P. Ferguson and William W. Hunt, both of Hull, Florida U.S.A., 18th February, 1897; 6 years. (Filed 21st January, 1897.)

Claim.—A flexible joint for a pipe, comprising an end section comprising a spherical inner end, a tubular section having a ball-shaped end to engage in said spherical end of the end section and having a spherical end, another end section having a ball-shaped end to engage in the spherical portion of the central section, the said end sections on their outer ends being provided with annular flanges, and a tubing of flexible material having its ends connected to said flanges, substantially as specified.

No. 55,032. Self-dumping Road Scraper.

(*Grattoir à bascule pour chemins.*)

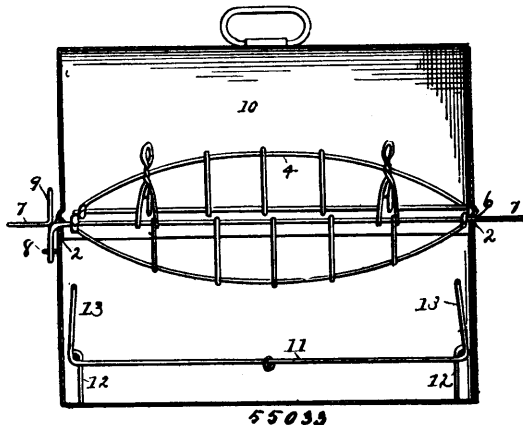


Sanders M. Thayer, Jamestown, New York, U.S.A., 18th February, 1897; 6 years. (Filed 20th January, 1897.)

Claim.—1st. In earth scrapers, a rod encircling the rear of the scraper and connected thereto, the rod being bent upward and provided near the end with a spur to engage the earth, the rod being provided with a tripping arm to hold it in position, substantially as shown and for the purpose set forth. 2nd. In earth scrapers, a rod hinged to the scraper, a tripping arm secured thereto, the rod passing each side of the scraper and provided with spurs to take the earth at different distances from the hinging point, substantially as shown and for the purpose set forth. 3rd. In earth scrapers, the rod 3, encircling the rear of the scraper and hinged thereto, and provided with spurs 4, 4, and 5, 5, and 5¹, 5¹, to engage the earth, and the trip arm 6, in combination with a spring arm, having one end secured to the scraper, the other end holding arm 6 in place, substantially as shown and for the purpose set forth. 4th. In earth scrapers, the body of the scraper having a blade straight or nearly straight on its cutting edge, the sides coming up on a slant back from the cutting edge to the full height of the blade, the scraper being provided with a draw-bale hinged on its inside, substantially

as shown and for the purpose set forth. 5th. In earth scrapers, the body of the scraper having a blade straight or nearly straight on its cutting edge, the sides projecting back on an acute angle from the cutting edge to the full height of the sides, a draw-bale hinged on the inside of the scraper blade, in combination with a self-dumping device, substantially as shown.

No. 55,033. Cooking Apparatus. (*Ustensile de cuisine.*)

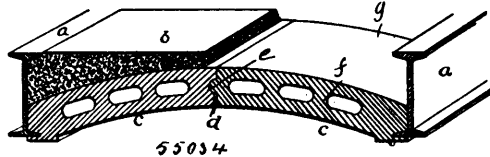


Anna Sickles, Bristol, Pennsylvania, U.S.A., 19th February, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. In a cooking apparatus, a holder having the general shape of the meat to be cooked, in combination with suitable loops and pins for securing said holder in a number of positions, as specified. 2nd. A cooking apparatus consisting of a pan, a suitable top and open-work holder journaled in said pan and having approximately the desired shape of the meat to be cooked, pins projecting from one end of said pan and suitable loops formed with one of the handles of said holder adapted to engage with said pins, substantially as shown and described. 3rd. In combination with a cooking apparatus, a holder consisting of a wire frame, and a suitable cover hinged thereto and provided with latches for securing said holder and cover in their proper relative position, handles for operating said holder, and loops for engaging suitable pins upon said cooking apparatus for retaining said holder in a desired position, substantially as shown and described. 4th. In a cooking apparatus, a pan having a suitable top in combination with a holder having a cover hinged thereto, a suitable latch for securing said cover in its closed position, loops formed with one of the handles of the holder, pins projecting from said pan adapted to engage said loops, and an open-work false bottom adapted to fit within said pan, substantially as shown and for the purpose set forth.

No. 55,034. Fireproof Floor Arch.

(*Plancher à l'épreuve du feu.*)



James D. Murphy, New York, State of New York, U.S.A., 19th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. A floor arch comprising a pair of blocks of suitable material adapted to fit together to form an arch, one of said blocks being formed with a groove in its abutting face, an integral rib formed on the other block, said rib being adapted to fit within the groove on the abutting block, substantially as described. 2nd. A floor comprising supporting beams placed at suitable distance from each other, a pair of blocks bridging the space between said beams, said blocks being supported at their outer ends by said beams, their inner faces abutting together midway between said beams, an integral horizontal rib formed on the outer vertical face of one of said blocks, a corresponding groove being formed in the vertical face of the other block, said rib and groove interlocking, and a top of concrete laid over said blocks, substantially as described.

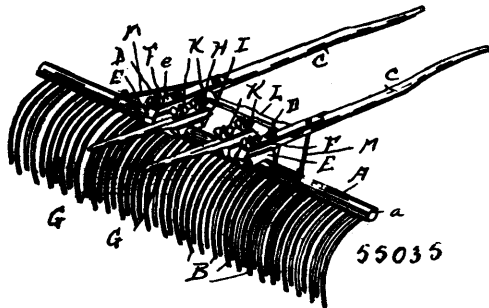
No. 55,035. Interchangeable Weeder and Rake.

(*Sarclour et rateau.*)

Alfred S. Topping, Hart, Michigan, U.S.A., 19th February, 1897; 6 years. (Filed 21st January, 1897.)

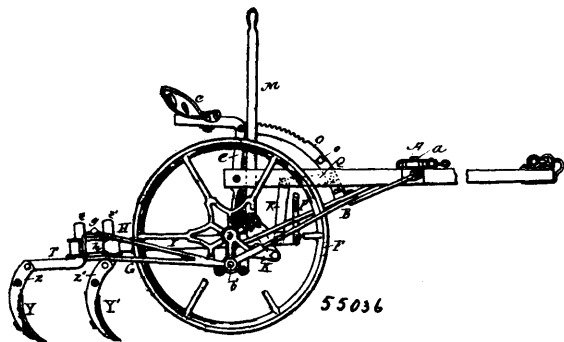
Claim.—In an interchangeable weeder and raker, the combination of the cylindrical head or tooth-bar A, provided with a longitudinal groove a , to receive the bent tooth ends, and having staples a^1 , embedded in said groove, curved spring-teeth B, passing through the head A, and secured within the groove by means of staples,

the shafts C, adjustably secured to the head, the grip clevises D, the interposed hollowed metallic blocks E, the securing-nuts F,



and the adjustable handles G, with their clevises H, blocks I, and thumb-nuts K, all constructed, arranged and operating as shown and described.

No. 55,034. Cultivator. (Cultivateur.)



Samuel L. Allen, Moorestown, New Jersey, U.S.A., 19th February, 1897; 6 years. (Filed 22nd January, 1897.)

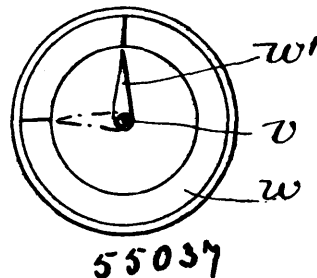
Claim.—1st. In a cultivator, a wheel-mounted frame having a pivotally-attached tool-frame in combination with a swinging adjusting-spring attached at one end to the said mounted frame, and movably connected at its other end with said pivoted tool-frame, substantially as described. 2nd. In a cultivator, a wheel-mounted frame having a pivotally-attached tool-frame having the lever part I in combination with a swinging adjusting spring J, and a hand-lever M, whereby the action of said adjusting-spring J, may be applied to the said lever I, at any point before, behind, or directly over the axle, all arranged as and for the purpose substantially as described. 3rd. In a cultivator, a wheel-mounted frame, a pivotally-attached tool-frame, the lever part I, having the track I', in combination with a swinging and adjusting-spring J, provided with a truck K, and hand-lever M, all arranged and operated substantially as described. 4th. In a cultivator, the combination of a wheel-mounted frame, a pivotally-attached tool-frame, an elbow-joint R Q, connected at one end with said wheel-mounted frame and at the other end with said pivoted tool-frame, a tool-frame operating hand-lever M, and a breaking-chain S, connecting said lever M, and said elbow-joint R Q, whereby the motion of said hand-lever necessary to lower said tool-frame also breaks said elbow-joint and allows said tool-frame to be lowered, substantially as described. 5th. In a cultivator, a wheel-mounted frame provided with a centrally-depressed axle D, in combination with a lever I, pivoted in said depression, the hand-lever-operated truck K, whereby said lever I, and truck K, are situated and operated above said axle below the level of the centre of the hubs of the wheels, substantially as described. 6th. In a cultivator-frame, a tool-holding head provided with the long and short reach tool-standards T and T', respectively, having the upper part t and t', and the lower end Z, all arranged as and for the purpose described. 7th. In a cultivator, a frame having the split central seat-supporting standard C, the centrally-depressed axle D, supporting the said standard C, the lever I, and spring J, both located within said split standard C, substantially as described.

No. 55,037. Air Compressor for use in Beer Drawing System. (Machine à comprimer l'air pour système de pompe à bière.)

Percy Scott, Montreal, Quebec, Canada, 19th February, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. An air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, an air exhaust from said tank or receptacle, means for controlling said air exhaust, an air supply to said tank or receptacle and means for controlling same, means for controlling said water supply, and a water discharge from said tank or receptacle, and

means for controlling same, for the purpose set forth. 2nd. An air compressor comprising a tank or receptacle, a water supply



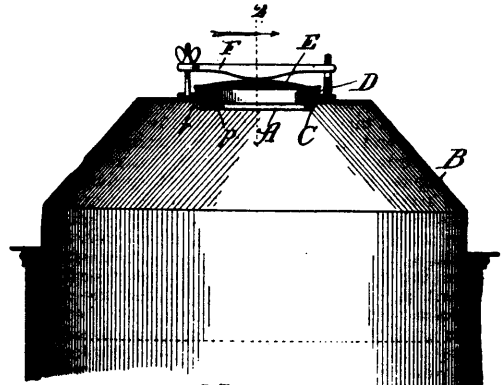
connected to said tank or receptacle, an air exhaust from said tank or receptacle, means for controlling said air exhaust, an air supply to said tank or receptacle, means for controlling said water supply, and a water discharge from said tank or receptacle and means for simultaneously controlling said water supply, air exhaust, air inlet and water discharge, for the purpose set forth. 3rd. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, an air exhaust from said tank or receptacle, means for connecting said air exhaust to the interior of said cask, means for controlling said air exhaust, an air supply to said tank or receptacle and means for controlling same, means for controlling said water supply and a water discharge from said tank or receptacle and means for controlling same, for the purpose set forth. 4th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, an air exhaust from said tank or receptacle, means for connecting said air exhaust to the interior of said cask, means for automatically checking the flow of said water through said air connection, means for controlling said air exhaust, an air supply to said tank or receptacle and means for controlling same, means for controlling said water supply and a water discharge from said tank or receptacle and means for controlling same, for the purpose set forth. 5th. In a beer drawing system, the combination with a cask from which beer is to be drawn and a valve controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve, a pipe connection between said tank or receptacle and check valve, a pipe connection between said check valve and the interior of the cask, an air inlet to said tank or receptacle, and means for controlling same, and a water discharge from said tank or receptacle, and means for controlling same, for the purpose set forth. 6th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve, a pipe connection between said tank or receptacle and check valve, a pipe connection between said check valve and the interior of the cask, an air inlet to said tank or receptacle, a water discharge from said tank or receptacle, and means for simultaneously controlling said water supply, air exhaust, air inlet and water discharge, for the purpose set forth. 7th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve, a pipe connection between said tank or receptacle and check valve, a pipe connection between said check valve and the interior of the cask, an air pressure reduction valve connected to said last mentioned pipe connection, a water pressure reduction valve located intermediate of and connected to said water supply and tank or receptacle, an air inlet to said tank or receptacle and means for controlling same, and a water discharge from said tank or receptacle and means for controlling same, for the purpose set forth. 8th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve, a pipe connection between said tank or receptacle and check valve, a pipe connection between said check valve and the interior of the cask, an air pressure reduction valve connected to said last mentioned pipe connection, a water pressure reduction valve located intermediate of and connected to said water supply and tank or receptacle, an air inlet to said tank or receptacle, a water discharge from said tank or receptacle, and means for simultaneously controlling said water supply, air exhaust, air inlet and water discharge, for the purpose set forth. 9th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve, a pipe connection between said tank or receptacle and said check valve, a pipe connection between said check valve and the interior of the cask, a three-way cock connected to said last mentioned pipe

connection, the valve of said three-way cock being adapted to, at different times, effect a communication between the tank or receptacle and the cask, and between the tank or receptacle and the open air, a three-way cock connected to the water supply, a water discharge pipe connected to said last mentioned three-way cock, the valve of said last mentioned three-way cock being adapted to, at different times, effect a communication between the said water supply and the tank and between the tank and the water discharge pipe, for the purpose set forth. 10th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a water pressure reduction valve connected to said water supply, a check valve, a pipe connection between said tank or receptacle and said check valve, a pipe connection between said check valve and the interior of the cask, an air pressure reduction valve connected to said last mentioned pipe connection, a three-way cock connected to said last mentioned pipe connection, the valve of said three-way cock being adapted to, at different times, effect a communication between the tank or receptacle and the cask, and between the tank or receptacle and the open air, a three-way cock connected to the water supply, a water discharge pipe connected to said last mentioned three-way cock, the valve of said last mentioned three-way cock being adapted to, at different times, effect a communication between the said water supply and the tank and between the tank and the water discharge pipe, for the purpose set forth. 11th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a water pressure reduction valve connected to said water supply, a check valve, a pipe connection between said tank or receptacle and said check valve, a pipe connection between said check valve and the interior of the cask, an air pressure reduction valve connected to said last mentioned pipe connection, a gauge connected to said last mentioned pipe connection and intermediate of said air pressure reduction valve and the cask, an air discharge cock and a shut-off cock connected to said last mentioned pipe connection and intermediate of said gauge and cask, a three-way cock connected to said last mentioned pipe connection, the valve of said three-way cock being adapted to, at different times, effect a communication between the tank or receptacle and the cask, and between the tank or receptacle and the open air, a three-way cock connected to the water supply, a water discharge pipe connected to said last mentioned three-way cock, the valve of said last mentioned three-way cock being adapted to, at different times, effect a communication between the said water supply and the tank and between the tank and the water discharge pipe, for the purpose set forth. 12th. A check valve consisting of a vertical gauge glass formed of a hollow glass cylinder, having its upper and lower ends respectively partially closed by a perforated cap and a perforated plate, pipe connections to the perforations in said cap and plate, and a float located within said gauge glass, for the purpose set forth. 13th. A check valve consisting of a vertical gauge glass formed of a hollow glass cylinder, having its upper and lower ends respectively partially closed by a perforated cap and a perforated plate, pipe connections to the perforations in said cap and plate, a series of suitably carried guide-rods having their lower ends off-set towards one another and such rods extending vertically towards the perforation in said cap, a float located between said guide-rods, for the purpose set forth. 14th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve consisting of a vertical gauge glass formed of a hollow glass cylinder, having its upper and lower ends respectively partially closed by a perforated cap and a perforated plate, pipe connections to the perforations in said cap and plate, and a float located within said gauge glass, a pipe connection between said tank or receptacle and check valve, a pipe connection between said check-valve and the interior of the cask, an air inlet to said tank or receptacle, and means for controlling same, and a water discharge from said tank or receptacle and means for controlling same, for the purpose set forth. 15th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve consisting of a vertical gauge glass formed of a hollow glass cylinder, having its upper and lower ends respectively partially closed by a perforated cap and a perforated plate, pipe connections to the perforations in said cap and plate, a series of suitably carried guide rods having their lower ends extending vertically towards the perforations in said cap, a float located between said guide rods, a pipe connection between said tank or receptacle and check valve, a pipe connection between said check valve and the interior of the cask, an air inlet to said tank or receptacle, and means for controlling same, and a water discharge from said tank or receptacle and means for controlling same, for the purpose set forth. 16th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlling outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve consisting of a

vertical gauge glass formed of a hollow glass cylinder having its upper and lower ends respectively partially closed by a perforated cap and a perforated plate, pipe connections to the perforations in said cap or plate, and a float located within said gauge glass, a pipe connection between said tank or receptacle and said check valve, a pipe connection between said check valve and the interior of the cask, a three-way cock connected to said last mentioned pipe connection, the valve of said three-way cock being adapted to at different times effect a communication between the tank or receptacle and the cask, and between the tank or receptacle and the open air, a three-way cock connected to the water supply, a water discharge pipe connected to said last mentioned three-way cock, the valve of said last mentioned three-way cock being adapted to at different times effect a communication between the said water supply and the tank and between the tank and the water discharge pipe, for the purpose set forth. 17th. In a beer drawing system, the combination with a cask from which beer is to be drawn, and a valve-controlled outlet for the beer from said cask, of an air compressor comprising a tank or receptacle, a water supply connected to said tank or receptacle, a check valve consisting of a vertical gauge glass formed of a hollow glass cylinder, having its upper and lower ends respectively partially closed by a perforated cap and a perforated plate, pipe connections to the perforations in said cap and plate, a series of suitably carried guide rods having their lower ends off-set towards one another and such rods, a float located between said guide rods, a pipe connection between said tank or receptacle and check said valve, pipe connection between said check valve and the interior of the cask, a three-way cock connected to said last mentioned pipe connection, the valve of said three-way cock being adapted to at different times effect a communication between the tank or receptacle and the cask and between the tank or receptacle and the open air, a three-way cock connected to the water supply, a water discharge pipe connected to said last mentioned three-way cock, the valve of said last mentioned three-way cock being adapted to at different times effect a communication between the said water supply and the tank and between the tank and the water discharge pipe, for the purpose set forth.

No. 55,038. Manhole Cover Seating.

(*Couvercle du trou d'homme.*)



Pettibone, Mulliken & Co., assignee of Henry Frederick Fuller, both of Chicago, Illinois, U.S.A., 19th February, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. In combination with a manhole, an annular transversely concave packing seat, a cover having an annular flange the underside of which is of slight transverse convexity as compared with the degree of concavity of the seat, forming with said seat a concavo-convex recess, and an elastic packing within said recess adapted by pressure to conform thereto and to be centrally compressed in the manner and for the purpose substantially as described. 2nd. In combination with a manhole, an annular transversely concave packing-seat having its concavity formed on a circle of one radius, an elastic packing in said seat, and a cover having a flange transversely convex on its underside on a circle of greater radius, whereby its pressure upon the elastic packing will cause the same to be compacted toward its centre, substantially as described.

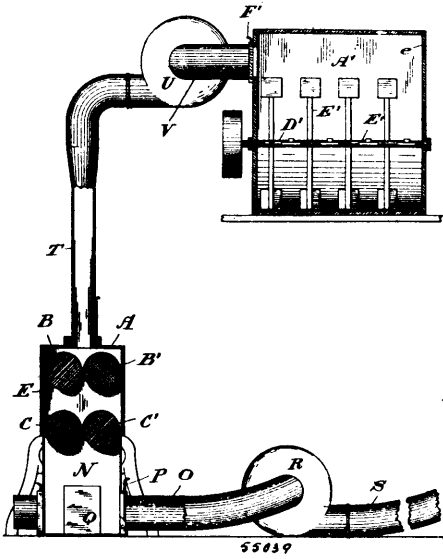
No. 55,039. Feather-Down Making Machine.

(*Machine à édreton.*)

William Robinson and Arthur George Cull, both of Toronto, Ontario, Canada, 19th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. In a feather down machine, a disintegrator provided with feed and discharge openings, disintegrating rollers journaled therein, and mechanism for driving the rollers, in combination with a pipe connected with the discharge opening of the disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, substantially as and for the purpose specified. 2nd. In a feather down machine, a disintegrator provided with feed and discharge openings, disintegrating rollers

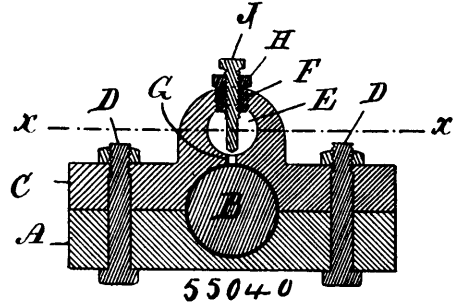
journalled therein, and mechanism for driving the rollers, in combination with a pipe connected with the discharge opening of the



disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, the end of the said pipe being turned obliquely upward, substantially as and for the purpose specified. 3rd. In a feather down machine, a disintegrator provided with feed and discharge openings, disintegrating rollers journalled therein, and mechanism for driving the rollers, in combination with a pipe connected with the discharge opening of the disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrating material, a feed pipe connected with the feed opening of the disintegrator, and mechanism for producing an air current in the said pipe, substantially as and for the purpose specified. 4th. In a feather down machine, a disintegrator provided with feed and discharge openings, disintegrating rollers journalled therein, and mechanism for driving the rollers, in combination with a pipe connected with the discharge opening of the disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, a feed box, a pipe connecting the feed box with the feed opening of the disintegrator, and mechanism for producing an air current in the said pipe, substantially as and for the purpose specified. 5th. In a feather down machine, a disintegrator provided with feed and discharge openings, in combination with a pipe connected with the discharge opening of the disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, substantially as and for the purpose specified. 6th. In a feather down machine, a disintegrator comprising a casing, a pair of disintegrating rollers journalled therein and gearing for driving the rollers, each roller having a series of triangular grooves cut therein to form a series of cutting edges, substantially as and for the purpose specified. 7th. In a feather down machine, a disintegrator comprising a casing, a pair of disintegrating rollers journalled therein, and mechanism for driving the rollers so that one revolves at a higher speed than the other, each roller having a series of diagonal triangular grooves cut therein to form a series of cutting edges, substantially as and for the purpose specified. 8th. In a feather down machine, a disintegrator comprising a casing, a pair of disintegrating rollers journalled therein and gearing for driving the rollers, each roller having a series of triangular grooves cut therein to form a series of cutting edges with flats between them, substantially as and for the purpose specified. 9th. In a feather down machine, a disintegrator comprising a casing, a pair of disintegrating rollers journalled therein, and mechanism for driving the rollers so that one revolves at a higher speed than the other, each roller having a series of diagonal triangular grooves cut therein to form a series of cutting edges, the edges in one roller being set in opposite direction to those in the other, substantially as and for the purpose specified. 10th. In a feather down machine, a disintegrator comprising a casing, two pairs of adjustable disintegrating rollers journalled therein, one pair above the other, and mechanism for driving the rollers so that one roller of each pair revolves at a higher speed than the other, each roller having a series of diagonal triangular grooves cut therein to form a series of cutting edges, the edges in one roller being set in the opposite direction to those in the other, substantially as and for the purpose specified. 11th. In a feather down machine, a disintegrator provided with feed and discharge openings, in combination with a feed box, a pipe connecting the feed opening of the disintegrator with the said box, mechanism for producing an air current in the said pipe, and a suitably driven agitator for throwing up the feathers into the path of the air current entering the pipe, substantially as and for the purpose specified. 12th. In a feather down machine, a disintegrator provided with

feed and discharge openings, in combination with a feed box, a pipe connecting the feed opening of the disintegrator with the said box, mechanism for producing an air current in the said pipe, and a suitably driven agitator for throwing up the feathers into the path of the air current entering the pipe, a pipe connected with the discharge opening of the disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, substantially as and for the purpose specified. 13th. In a feather down machine, a disintegrator provided with feed and discharge openings, in combination with a feed box, a pipe connecting the feed opening of the disintegrator with the said box, a regulating slide in said pipe, mechanism for producing an air current in the said pipe, a suitably driven agitator for throwing up the feathers into the path of the air current entering the pipe, a pipe connected with the discharge opening of the disintegrator, a regulating slide in said pipe, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, substantially as and for the purpose specified. 14th. In a feather down machine, a disintegrator provided with feed and discharge openings, in combination with a receiver connected with the discharge opening of the disintegrator, a sliding door located in one side of the receiver, a discharge pipe connected with the receiver, a regulating slide in said pipe, and mechanism for producing an air current in said pipe, substantially as and for the purpose specified. 15th. In a feather down machine, a disintegrator provided with feed and discharge openings, disintegrating rollers journalled therein, and mechanism for driving the rollers, in combination with a feed box, a pipe connecting the feed opening of the disintegrator with the said box, mechanism for producing an air current in the said pipe, and a suitably driven agitator for throwing up the feathers into the path of the air current entering the pipe, a pipe connected with the discharge opening of the disintegrator, and mechanism for producing an air current in the said pipe to draw away the disintegrated material, substantially as and for the purpose specified.

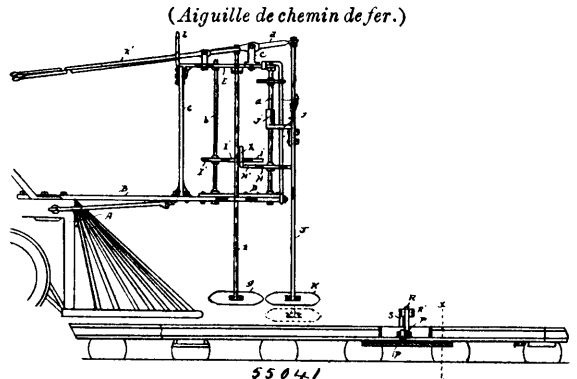
No. 55,040. Journal Bearing. (Coussinet de tourillon.)



George Henry Broder, and Meritt Gordon Broder, both of Winchester, Ontario, Canada, 19th February, 1897; 6 years. (Filed 18th January, 1897.)

Claim.—1st. A journal bearing, having a cavity E, or oil reservoir in the removable cap or upper half C, a supply inlet or hole F, upwardly from said cavity, and a feed outlet or hole G, downwardly, a plug H, screwing into hole F, and a regulating feed screw J, passing through the plug, the point of said feed screw closing said hole F, and by adjustment regulating the flow of the lubricant, as set forth. 2nd. In a journal bearing, the combination with a pillow block or bearing A, of the cap C, having a cavity E, to contain a lubricant, and provided with a feed outlet G, and a feed screw J, screwing through the cap into the cavity to regulate discharge of the lubricant, as set forth.

No. 55,041. Automatic Railway Switch. (Aiguille de chemin de fer.)

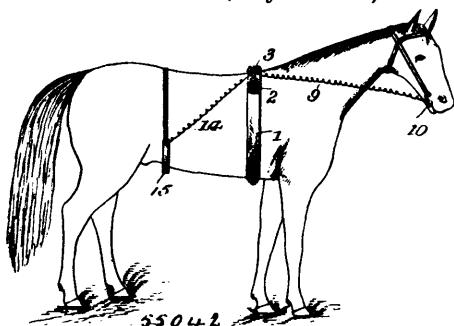


Hans Hansen Fröland, Tola, Wisconsin, U.S.A., 19th February, 1897; 6 years. (Filed 23rd January, 1897.)

Claim.—1st. In an automatic switch mechanism, the combination with the track locking devices consisting of a transverse bar rigidly

connected to the switch-rails, horizontal links pivotally connected to each other and at their outer ends to the transverse bar, and a locking-pin connected to said links, of releasing mechanism carried by the moving train, and consisting essentially of adjustable shoes which engage and shift the track, substantially as described. 2nd. In an automatic switch, the combination of the mechanism carried by the moving car, consisting essentially of the vertically-adjustable shoes and the levers for operating them, of the track-locking devices, consisting essentially of the transverse bar connecting the switch tracks, horizontal links pivotally connected to each other and at their outer ends to the transverse bar, and a locking-pin connected to said links, all substantially as set forth. 3rd. In a switch mechanism, the combination with the releasing contrivances carried by the moving car and including a curved shoe, of the track-locking devices, consisting essentially of a locking-pin carried by a horizontal linked bar pivotally attached to the rigid transverse bar connecting the rails, a releasing finger therefor which is actuated by the moving shoe, and a stationary shifting-finger, all arranged substantially as described. 4th. The combination of the movable mechanism consisting of the key-acting shoe or shoes, mechanism for supporting or adjusting them, the interlocking guiding devices to steady or actuate the shoes, and the track-locking mechanism comprising a locking-pin, releasing-fingers for said pin, and rigid shifting fingers for the track, substantially as described. 5th. In a switch, the combination with a moving vehicle, of an adjustable shoe thereon, said shoe being compoundly curved and having pointed ends, and the track-locking mechanism, consisting of a locking-pin, carried by a link-bar pivotally attached to the rigid transverse bar connecting the rails, a releasing finger on said linked bar adapted to be engaged by the aforesaid shoe, substantially as described. 6th. In combination with a track-locking device, of key-acting shoe or shoes carried by vertical rods, said rods having horizontal actuating-levers connected therewith and journaled in a framework on the car platform, vertical rods also journaled in said framework, having connection with the shoe carrying rods and provided with hand-wheels by means of which said shoes may also be operated, substantially as set forth.

No. 55,042. Device for Preventing Self-abuse by Stallions. (Targe à étalon.)



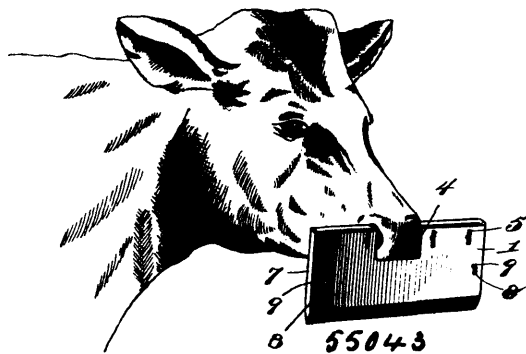
Lourey Alexander Gray, Arlington, Maryland, U.S.A., 19th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—1st. An apparatus of the character specified consisting of a girth having a source of electric energy and an induction coil, a circuit-closer adapted to maintain an open circuit and to be secured upon the abdomen of the horse, a primary circuit, and a secondary circuit including the circuit closer, a metal in electrical contact with the horse and the intervening portion of the body, substantially as described. 2nd. An apparatus of the character specified, comprising a source of electric energy, a circuit-closer adapted to lie against and be insulated from the abdomen of the horse, and an automatic switch consisting of a non-conducting receiver containing a suitable movable conducting material, the switch terminals being within the receiver in such position as to be both in contact with the conducting material when the horse stands and to have but one terminal in contact when the horse is lying down, substantially as described. 3rd. An apparatus of the character specified, consisting of a source of electric energy and an induction-coil adapted to be secured upon the body of a horse, a circuit-closer forming part of the secondary circuit of the induction-coil and adapted to lie against and be insulated from the abdomen, an automatic switch arranged upon the base-plate of the induction-coil and consisting of a non-conducting receiver having terminals of the primary circuit entering the ends of said receiver, and a secondary circuit including the circuit-closer, a metal in electrical contact with the body, such as the bit, and the intervening portion of the body, substantially as described. 4th. An apparatus of the character specified, consisting of an induction-coil secured to a girth so as to rest directly over the horse's back, two dry batteries one upon each side of the induction-coil and connected in the primary circuit, a circuit-closer consisting of a conducting strip carried by and insulated from a strap adapted to be fastened to the abdomen, an automatic switch consisting of a cylindrical receiver on the base-plate of the induction-coil and having terminals of the battery wires entering its ends, the receiver containing a body of mercury to make contact with both terminals

when the horse stands and with but one when lying down, and a secondary circuit including the circuit-closer, the bit and the intervening part of the body, substantially as described.

No. 55,043. Calf Weaner.

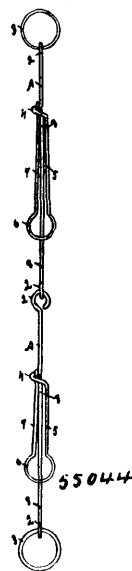
(Appareil de sevrage pour les veaux.)



John A. Griffin, assignee of John B. McCarthy, both of Eekley, Colorado, U.S.A., 19th February, 1897; 6 years. (Filed 25th January, 1897.)

Claim.—A calf-weaner having a plate or board cut away to form a recess to receive the nose of the animal, nose-engaging bolts mounted to slide in alignment upon the plate or board with their inner extremities projecting over said recess to engage the nostrils, and terminating at their outer ends in crank-arms, and means for securing the crank-arms in contact with the plate when the bolts are extended inwardly, said means including pliable locking-pins attached to the crank-arms, engaging perforations in the plate and deflected at their rear extremities to prevent accidental displacement, substantially as specified.

No. 55,044. Clothes Line. (Corde à linge.)



Henry J. Wendt, Excello, Missouri, U.S.A., 19th February, 1897; 6 years. (Filed 23rd January, 1897.)

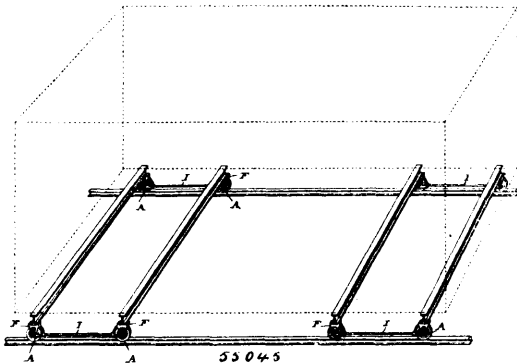
Claim.—As an improved article, a clothes line made up of a number of sections, each consisting of a horizontal metal arm 8 of wire having one end bent into an eye 2, and said wire bent backwardly forming an arm 7, and bent into a circular form forming a loop 6, which is turned or bent outwardly or away from the arm 8, and said wire then extended forwardly forming an arm 5, and then bent upwardly forming an arm 4, and then passed between arms 7 and 8 at their junction, and then extended outwardly, forming a horizontal arm A, having an eye at the end, substantially as described.

No. 55,045. Lumber Truck. (Camion pour le bois.)

Jacob Albert Ulman and Victor Lee Emerson, both of Baltimore, Maryland, U.S.A., 19th February, 1897; 6 years. (Filed 23rd January, 1897.)

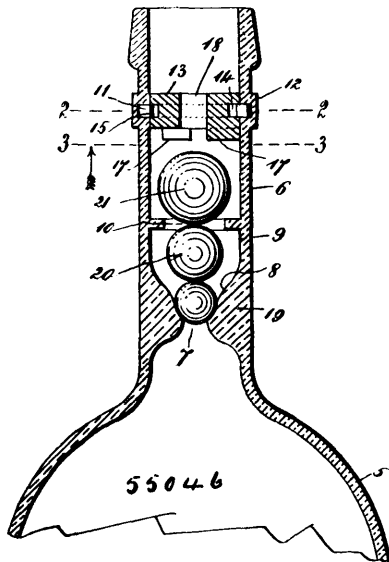
Claim.—1st. A truck comprising two wheels in alignment; a shaft or axle in each wheel with ends projecting at opposite sides; two separate and independent frames, each one astride of a different wheel and engaging both ends of the shaft or axle thereof, and each

frame having on top a seat for a cross-beam; and a connection uniting said two frames and attached to them below said top seats,



for keeping the wheels rigidly aligned. 2nd. The combination of two trucks parallel with each other, each truck having two or more wheels in alignment; a separate frame over each wheel and having a seat, and a rigid connection between the said aligned frames; and cross-beams connecting from one truck to the other and resting on the seats of said frames—said cross-beams for the purpose of supporting the load. 3rd. A truck having two or more wheels which are in alignment; two separate frames each supported over a different one of said wheels, and each adapted to carry a load substantially in a line vertical with respect to the axis of the wheel over which it sets, a telescopic tube uniting said frames, and a clamp to hold the said telescopic tube at any position of adjustment. 4th. A truck having wheels in alignment, a separate frame over each wheel, said frame having a top-seat for a cross-beam, and said seat provided with means to prevent the cross-beam from slipping off, and a connection in the line of the wheels uniting the said frames and attached thereto below said seats.

No. 55,046. Bottle. (Bouteille.)

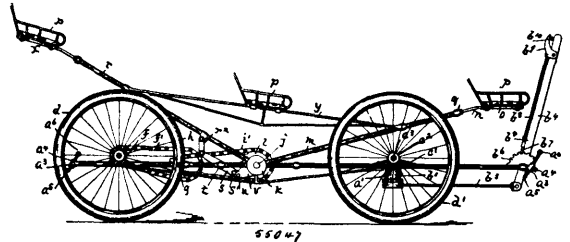


David Robert Saunders and Howard Franklin Smith, both of Houston, Texas, U.S.A., 19th February, 1897; 6 years. (Filed 23rd January, 1897.)

Claim.—1st. A bottle or other vessel provided with a neck, in the bottom of which is a conical chamber, the base of which is directed outwardly, and the apex of which is provided with a small port or passage, a float valve which is placed in said chamber, and adapted to close said port or passage, a ball or body which is placed in said chamber over said valve, and another ball or body placed in the neck of the bottle above said first named ball or body, said neck being also provided above said last named ball or body with a disc or plug which is adapted to be secured therein, and through which is formed a port or passage, substantially as shown and described. 2nd. A bottle or other vessel provided with a neck, in the bottom of which is a conical chamber, the base of which is directed upwardly, and the apex of which is provided with a small port or passage, a float valve which is placed in said chamber, and adapted to close said port or passage, a spherical ball or body which is placed in said chamber over said valve, and another ball or body placed in the neck of the bottle above said first named ball or body, said neck being also provided above said last named ball or body with a disc or plug which is adapted to be secured therein, and through which

is formed a port or passage, said disc or plug being provided on its underside with radial ribs or projections, substantially as shown and described. 3rd. A bottle or other vessel provided with a neck, in the bottom of which is a contact chamber, the base of which is directed upwardly, and the apex of which is provided with a small port or passage, a float valve which is placed in said chamber, and adapted to close said port or passage, a spherical ball or body which is placed in said chamber over said valve, and another ball or body placed in the neck of the bottle above said first named ball or body, said neck being also provided above said last named ball or body with a disc which is adapted to be secured therein, and through which is formed a port or passage, said disc or plug being provided at its underside with radial ribs or projections, and said neck of the bottle being provided at the upper end of the conical chamber with an annular inwardly directed shoulder or projection, substantially as shown and described.

No. 55,047. Quadracycle. (Quadracycle.)

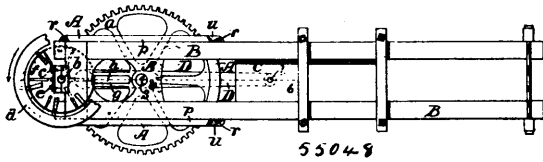


Willard Herbert Gilman, Boston, Massachusetts, U.S.A., 22nd February, 1897; 6 years. (Filed 26th December, 1896.)

Claim.—1st. A velocipede, or the like, comprising in its construction a body frame, a shaft journalled on the body frame, propelling devices, and an oscillatory frame mounted upon the shaft, and provided with means whereby the oscillation of the frame will cause the shaft to revolve in a given direction, and devices operatively connecting the shaft and the propelling devices. 2nd. A velocipede, or the like, comprising in its construction a body frame supported upon suitable wheels or the like, and having the axle of one pair of wheels journalled in bearings provided on the body frame, a shaft journalled upon said frame, an oscillatory frame mounted upon the shaft, with seats mounted at or near the extremities of the oscillatory frame, means for operatively connecting the driving shaft and the driving axle, and means operatively connected with the oscillatory frame for imparting movement of rotation to the shaft in a given direction in both directions of movement of the oscillatory frame. 3rd. A velocipede, or the like, comprising in its construction a body frame, a shaft journalled on the body frame, propelling devices, and an oscillatory frame mounted upon the shaft, and provided with means whereby the oscillation of the frame will cause the shaft to revolve in a given direction, and devices operatively connecting the shaft and the propelling devices, seats mounted at or near the extremities of the oscillatory arms, and foot levers mounted upon the shaft provided with means for imparting movement of rotation to the shaft in a given direction in both directions of the movement of the foot rest frame. 4th. A velocipede, or the like, embodying in its construction a body frame, an axle journalled in said frame, wheels mounted on said axle, a shaft journalled on said body frame, arms provided with hubs mounted upon the shaft, a clutch mechanism embodied in said hubs for engaging the shaft in one direction of movement of said arms, and means operatively connected with said arms engaging the shaft in the opposite direction of movement of said arms whereby the shaft is caused to rotate in a given direction, a sleeve fixed to the body frame, an axle having wheels mounted upon its extremities, a pivot pin fixed to said axle, and devices connected with said axle whereby the same may be swung upon its pivot pin, and seats mounted upon the extremities of the oscillating arm, substantially as described. 5th. A velocipede, or the like, embodying in its construction a body frame, an axle journalled in said frame, wheels mounted on said axle, a shaft journalled on said body frame, arms provided with hubs mounted upon the shaft, a clutch mechanism embodied in said hubs for engaging the shaft in one direction of movement of said arms, and means operatively connected with said arms engaging the shaft in the opposite direction of movement of said arms, and means operatively connected with said arms engaging the shaft in the opposite direction of movement of said arms whereby the shaft is caused to rotate in a given direction, a sleeve fixed to the body frame, an axle having wheels mounted upon its extremities, a pivot pin fixed to said axle, and devices connected with said axle whereby the same may be swung upon its pivot pin, and seats *p* mounted upon the extremities of the oscillating arms, and provided with brackets *p*¹ and rolls *p*², substantially as described. 6th. In a velocipede, or the like, the combination with the body frame, axles, wheels mounted upon said axles, a shaft journalled on said body frame, devices operatively connecting the shaft and the driving axle of the arms *m* and *r* mounted upon said shaft and provided with hubs *m*¹ and links *r*², levers *s* pivoted to the body frame, and levers *v* mounted upon the axle, substantially as described. 7th. In a velocipede, or the like, the combination with the body frame, axles mounted on said frame, wheels mounted on said axles, the shaft journalled on said body

frame, an oscillatory frame mounted on said shaft and provided with means for imparting movement of rotation to said shaft in a given direction in both directions of movement of said frame, and means operatively connecting the shaft and the driving axle, of the foot rest arms d^2 and d^4 formed with hubs d^2 , embodying a clutch mechanism, links d^5 , levers d^6 pivoted to the body frame, and levers d^8 formed with hubs mounted upon the shaft, and embodying a clutch mechanism for engaging said shaft in one direction of their movement, substantially as described.

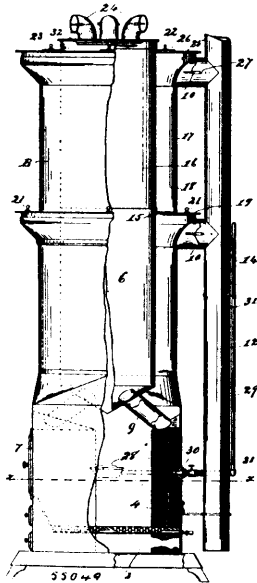
No. 55,048. Baling Press. (Presse à foin.)



Frank L. Robison, Buffalo, New York, U.S.A., 22nd February, 1897; 6 years. (Filed 27th January, 1896.)

Claim.—1st. In a baling press, the combination, with a main frame, of a gear-frame therein, comprising two equal parts, each of which is provided with projecting lugs at each end, a bearing at the middle, and a circular groove eccentric thereto, said gear-frame being provided with a large central opening, a master wheel journaled in each bearing and lying in said opening, and having a radially slotted arm, a pin through the arms, having its ends in the grooves, a pitman upon the pin, and a plunger connected with the pitman, substantially as set forth. 2nd. In a baling press, the combination with a main frame, of a gear-frame therein, the sides of which are each provided with a bearing and a circular groove eccentric thereto, and the front end being provided with a recess leading into the groove, a master wheel journaled in each side and provided with a radially slotted arm, a pin through the arms and having its ends projecting into the grooves, a pitman upon the pin, and a plunger connected with the pitman, substantially as set forth.

No. 55,049. Stove. (Poêle.)

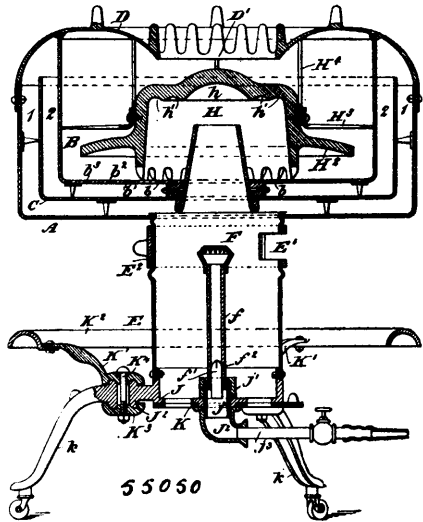


James Fleming, Shakopee, Minnesota, U.S.A., 22nd February, 1897; 6 years. (Filed 19th January, 1897.)

Claim.—1st. The combination with a stove of the class described, consisting of a rectangular fire box and a centrally arranged air chamber above the same forming an annular air space between it and the outer wall of the stove, of the extension section detachably fitted to the top of the stove, and having a central air chamber and surrounding space, registering with the air chamber and annular space in the stove body and the smoke pipe, the connection between the similar space in the extension section and the smoke pipe, and the damper interposed between said spaces, whereby the products of combustion may be permitted to circulate through both the stove and section, or may be cut off from said section by the closing of the intermediate damper. 2nd. The combination with a stove of the class described, provided with a rectangular fire box, the centrally arranged air chamber arranged above the same, and the annular space around the same connected with the fire box, and also having connection with the smoke outlet, of the extension section adapted to be detachably fitted to the top of the stove, said section being provided with a central air chamber registering with the air

chamber of the stove, and with an annular space between said chamber and its outer wall corresponding with the similar space between the chamber and the wall of the stove, the valve interposed between said annular spaces, the valve controlled openings in the crown sheet of the extension section, and the cap removably fitted over the top of the central air chamber of said extension section, and provided with heat conducting pipes. 3rd. The combination with a stove of the class described, having an air chamber centrally arranged above the fire box forming an annular space between it and the outer wall of the stove connecting with the fire box, of the extension section adapted to be detachably fitted to the top of the stove, and having a central air chamber and a surrounding annular space, registering with the air chamber and surrounding space in the stove body, the damper controlled opening between said annular spaces, the damper controlled openings in the crown sheet of said section at the top of its annular space, the cap adapted to be removably fitted over the top of the central air chamber of said section, and provided with heat conducting pipes, and the damper controlled openings in the wall of said cap.

No. 55,050. Gas Burner. (Bec à gaz.)



Virgil W. Blanchard, New York, State of New York, U.S.A., 22nd February, 1897; 6 years. (Filed 3rd December, 1896.)

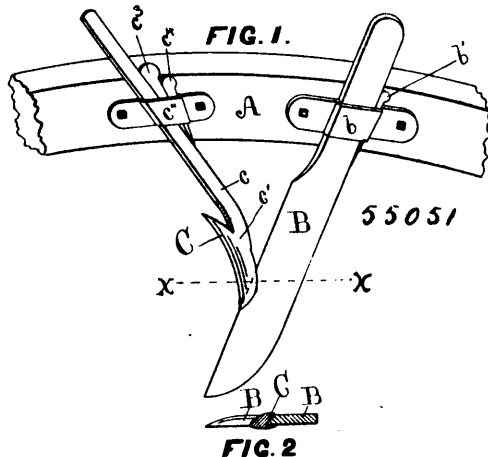
Claim.—1st. The combination of a chamber having an inlet opening at the bottom and a suitable outlet opening, a dome situated within said chamber above its inlet opening, and means for admitting air through the bottom of the chamber at points contiguous to the base of the dome, with means for admitting fuel into the dome through the inlet opening, substantially as and for the purpose described. 2nd. The combination of a chamber having an inlet opening at the bottom and a suitable outlet opening, a dome situated within said chamber above its inlet opening, and provided with an external flange which extends laterally to near the side walls of the chamber, and means for admitting air through the bottom of the chamber at points contiguous to the base of the dome, with means for admitting fuel into the dome through the inlet opening, substantially as and for the purpose described. 3rd. In a gas burner, the combination of a combustion chamber and a dome therein having ports in its lower edge and provided with a flange or ring exterior to and above said ports adapted to spread out the burning gases or products of combustion escaping from the dome in a thin layer, with means for admitting air into gases as they pass under the flange, and means for discharging combustible fluids into the dome, substantially as described. 4th. In a gas heater, the combination of a combustion chamber and an air chamber exterior thereto with a dome in said combustion chamber having an external flange or ring and ports below the flange for the escape of burning gases from the dome, said flange being adapted to spread out the burning gases in a thin layer and direct them against the walls of the inclosing chamber, with means for admitting air from said air chamber into the burning gases, and means for discharging combustible fluids into the dome, substantially as and for the purpose described. 5th. The combination of the casing, the interior combustion chamber and air passages between the casing and combustion chamber, with the tube extending into the combustion chamber, the dome in the combustion chamber over the tube, and a burner below the tube, substantially as described. 6th. The combination of the casing having an enlarged upper part provided with air passages around its walls and an interior combustion chamber communicating with the air passages; with the tube, the dome in the combustion chamber over the tube, having ports and a flange extending toward the walls of the combustion chamber, with a burner below the tube, and a gas and air mixing tube below the burner, all substantially as and for the purpose set forth. 7th. The combination of the cylinder,

the casing thereon having air passages around its walls substantially as described and an internal combustion chamber, with a gas and air mixing tube in the cylinder, a burner on said tube, a tube supported in the casing over the burner, and extending into the combustion chamber, and a dome over said tube within the combustion chamber, having ports in its lower edge, and apertures for admitting air from said air passages into the burning gases in said dome and combustion chamber, substantially as described. 8th. In a gas heater, the combination of the casing, its cover, the combustion chamber B and interposed diaphragm C, arranged to form air passages between the diaphragm and casing and between the diaphragm and combustion chamber, said air passages communicating with the combustion chamber, with the dome in chamber B, and means for discharging combustible gases into the dome, substantially as described. 9th. In a gas heater, the combination of the casing, the vessel B therein having perforated bottom and interposed diaphragm C arranged to form air passages between the casing and vessel, with the dome H within vessel B, the burner below the dome, and means for introducing products of combustion from the burner into the dome, substantially as described. 10th. The combination of the casing, the vessel B therein and the diaphragm C interposed between the vessel and casing so as to form air passages therebetween, with a tube G passing through the casing and diaphragm, the air and gas mixer and burner below the tube, and the gas trapping dome H in vessel B above the tube, all constructed and adapted to operate substantially as and for the purpose described. 11th. The combination of the casing, having an interior combustion chamber, and the communicating outer and inner air chambers or passages 1 and 2 within the casing around the combustion chamber and communicating therewith, with the dome H having flange H², within the combustion chamber, and the burner below and discharging into the dome, all constructed and arranged substantially as described. 12th. The combination of the casing, having an interior combustion chamber, and an air chamber or passage surrounding the combustion chamber within the casing, with the dome H within the combustion chamber, having ports in its lower edge and an exterior flange above the apertures, the burner below the dome, the tube interposed between the burner and dome, and the gas and air mixer below the burner, all substantially as and for the purpose described. 13th. The combination of a gas burner, a tube above the same, and a dome over the tube into which the products of combustion are delivered, said dome having depending studs over the tube, substantially as described. 14th. The combination of the combustion chamber, a tube therein, a burner below the tube, a dome over and partly inclosing the tube having a radical external flange and an inner cavity in which are depending studs, and means for admitting air to said combustion chamber, substantially as described. 15th. The combination in a heater, of a combustion chamber, a dome therein into which the combustible fluid is delivered, a casing inclosing the dome, and a series of two or more superimposed alternately disposed annuli in the combustion chamber, exterior to the dome, between which the combusting gases are successively passed, and means for injecting air at intervals into the gases, substantially as described. 16th. The combination of the combustion chamber having an air passage or chamber around its walls and bottom communicating with said combustion chamber, a dome supported in said chamber, a series of two or more annuli in the combustion chamber, and means for supplying combustible fluid to the dome, substantially as described. 17th. The combination of the combustion chamber, a dome therein having a lateral flange near its lower edge, an annular ring on the side of casing above the flange, and another annulus surrounding the dome above the ring, with means for admitting combustible fluid to the dome and means for admitting air to the combustion chamber, substantially as and for the purpose set forth. 18th. The combination of the combustion chamber, a dome therein having a lateral flange near its lower edge, an annulus on the side of casing above the flange, another annulus surrounding the dome above the ring, said flange, ring and annuli being studded substantially as described, and means for injecting air into the gases passing from the dome past the flange, ring and annuli, with means for admitting combustible fluids into the dome, substantially as and for the purpose set forth. 19th. The combination of the combustion chamber, the casing, a tube supported therein projecting into the combustion chamber, a dome in the combustion chamber, inclosing the tube, and two or more annuli surrounding the dome, with means for admitting air into the gases in the combustion chamber, substantially as and for the purpose described. 20th. The combination of the deflector C, the tube G therein, the combustion chamber B within deflector C, the dome H, having flange H² in chamber B, and the annuli I and i, surrounding the dome and means for admitting combustible fluid to the dome and means for admitting air to the combustion chamber, substantially as described. 21st. The combination of the combustion chamber B, casing A, and deflector C, dividing the space between the chamber and casing into air passages which communicate with the combustion chamber, the tube G supported on deflector C and projecting into the combustion chamber, the dome H in the combustion chamber, over tube G, having flange H², and the annuli I and i, exterior to the dome, with the burner below the tube, and means for supplying gas and air to the burner, substantially as and for the purpose set forth. 22nd. The combination with the cap J having lateral T-flange J², the legs k and the arms K¹, with the bolt K⁴ and clip-plates K³ for securing the

legs and arms to the flange, substantially as described. 23rd. The combination of the cylinder, the burner therein, the casing A supported on the cylinder, the combustion chamber in said casing, the tube in said chamber above the burner, the dome superimposed over the tube having a cavity in its ceiling, and a lateral flange, and the annuli I and i in the combustion chamber exterior to the dome, and means for admitting air to the combustion chamber for the purpose and substantially as described. 24th. The combination of the cylinder, the gas burner therein, the casing A on the upper end of cylinder, the combustion chamber B in the casing, the deflector C between the casing and the combustion chamber, dividing the space between the chamber and casing into air passages communicating with the combustion chamber and the tube above the burner passing through the casing and deflector into the combustion chamber, with the dome H over said tube, one or more annuli surrounding the dome, said annuli being studded, substantially as described. 25th. The combination of the cylinder, the removable pipe f therein having a gas tip at one end and a burner at the other, the casing A, deflector C and combustion chamber B supported on said cylinder, and the tube G above the burner having a removable ring G³, with the dome H in the combustion chamber having internal cavity h³, studs h⁴, and external studded flange H², the studded annulus I above the flange, the studded annulus i above annulus I, the cover and perforations in the walls of the combustion chamber for admitting jets of air into the burning gases therein, substantially as and for the purpose set forth.

No. 55,051. Stubble Rejecter.

(Attache pour coutrc de charrue.)

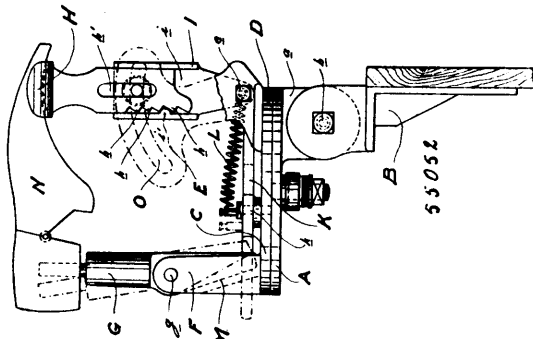


Harvey Pearson, Depeyster, New York, U.S.A., 22nd February, 1897; 6 years. (Filed 26th January, 1897.)

Claim.—A stubble rejecter comprising a curved metal horn, having a wedge-shaped front edge and bifurcated rear portion adapted to straddle and fit over the sharpened edge of the ordinary plough colter.

No. 55,052. Last Holder for Boots and Shoes.

(Porte-forme pour chaussures.)



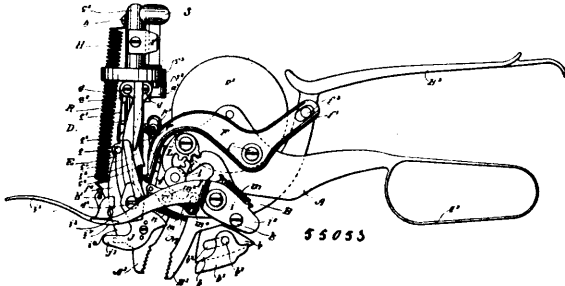
Isaie Fréchette, Montreal, Quebec, Canada, 22nd February, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. In a last holder for boots and shoes, the combination of a rotating plate D, provided with a clamping lever K having a spring L, with a standard E, and pivoted heel support G, substantially as described and for the purpose set forth. 2nd. In a last holder for boots and shoes, the combination of a plate D, provided with a clamping lever K having a spring L, with a standard E having the curved slot O, radial arm I, toe support H having a one-sided toothed tail-piece, stopper i, and thumb-screw J, all substantially as described and for the purposes set forth. 3rd. In a

last holder for boots and shoes, the combination of a rotating plate D, having a standard E, provided with a curved slot O, into which slides a clamping thumb-screw J, with a radial arm I having a U-shaped channel *i*, and a projection *l*¹, a toe supporting piece H having a one-sided toothed tail-piece all secured together by means of a thumb-screw J, substantially as described and for the purposes set forth. 4th. In a last holder for boots and shoes, the combination of a bracket B, and an adjustable bed-plate A, with a rotating plate D, having a standard F provided with a rocking heel support G, a standard E, having a curved slot O, and provided with a radial arm I, guiding the toe-support H, and secured by means of a thumb-screw J, substantially as described and for the purposes set forth. 5th. In a last holder for boots and shoes, the securing of the last by means of a lever pivoted to a suitable frame, and being held in position by means of a spring, substantially as described and for the purposes set forth.

No. 55,053. Hand Lasting Tool.

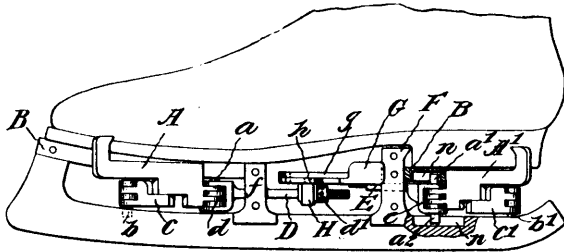
(Outil à main pour mettre en forme.)



Isaie Fréchette, Montreal, Quebec, Canada, 22nd February, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. In a hand lasting tool, the combination of a pair of pincher jaw levers pivoted together, a lever I, having one end secured to the combined cam and toothed piece K, the combined cam and toothed piece K, toothed piece L, a lever M, having an adjustable slotted piece *m*¹, which is secured to the feed pawl N, substantially as described and for the purpose set forth. 2nd. In a hand lasting tool, a slidable combined hammer head and fulcrum, substantially as described and for the purposes set forth. 3rd. In a hand lasting tool, the combination of the hand lever I, with a lever J, having a cutter Q secured to it, substantially as described and for the purposes set forth. 4th. In a hand lasting tool, the combination of a lever I, having a projection *i*⁶, with a pawl E, having a projection *e*, substantially as described and for the purposes set forth. 5th. In a hand lasting tool, the combination of a lever I, having a projection *i*⁶, with a pendant stop R, substantially as described and for the purposes set forth. 6th. In a hand lasting tool, the combination of a lever I, with a spring H, having one end secured to it, and the other to the plunger, substantially as described and for the purposes set forth. 7th. In a hand lasting tool, the combination of a lever I, a spring H, having one end secured to it and the other to the plunger, with a lever J, provided with a cutter Q, substantially as described and for the purposes set forth. 8th. In a hand lasting tool, a feed regulator composed of an adjustable slotted piece *n*¹, substantially as described and for the purposes set forth. 9th. In a hand lasting tool, means for regulating the driving in of the nails more or less, substantially as described and for the purposes set forth. 10th. In a hand lasting tool, the combination of a pair of pincher jaws, with a suitable piece secured to the end of one of them, and to act as a guide, pressing the leather of the upper against the last in nailing the heel, substantially as described and for the purposes set forth.

No. 55,054. Skate. (Patin.)

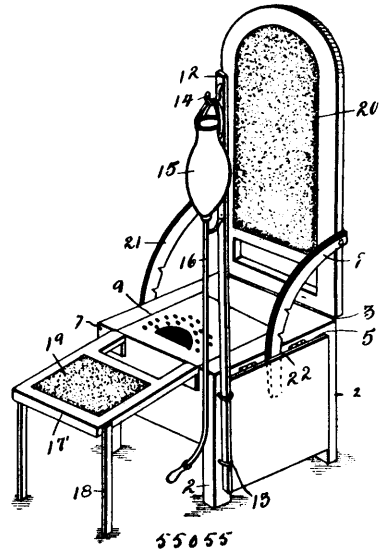


John Edward Martin, Haida, Bohemia, Austria-Hungary, 22nd February, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. A skate having toe and heel clips adapted to be folded into the plane of the blade, provided with two pivots *a* and *a*¹, which are capable of being moved towards and away from each

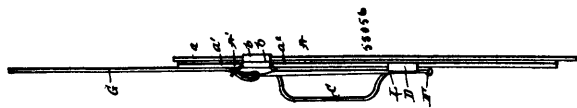
other longitudinally, and about which are movable two pairs of clips, A and A¹, which are connected by radius rods, *c* and *c*¹, with two stationary pins, *b* and *b*¹, and are also connected by the pins *σ* and *a*¹, respectively, with a movable screw spindle D and with a sliding piece E, of which the former is provided with a freely movable block H, and the latter with an arm *g*, both the block H and the arm *g* being connected with a hand lever G, so that the heel clips A¹ will be opened out by the outward movement of this lever and the toe clips A opened out by the subsequent forward movement of the spindle D, whilst both pairs of clips will be folded together or pressed against the boot by the backward rotation of the hand lever. 2nd. In a collapsible skate of the kind referred to in the preceding claim, a screw spindle D, having an adjusting nut *d*¹ thereon, the arrangement being such that, by screwing this nut backwards or forwards, the movement of the spindle can be varied and the separation of the slips constituting each of the pairs A and A¹ be thereby adjusted to the breadth of the boot with which the skate is to be used. 3rd. A collapsible skate constructed, arranged, and operating as hereinbefore described with reference to and shown in the accompanying drawings.

No. 55,055. Invalid Chair. (Fautueil d'invalides.)



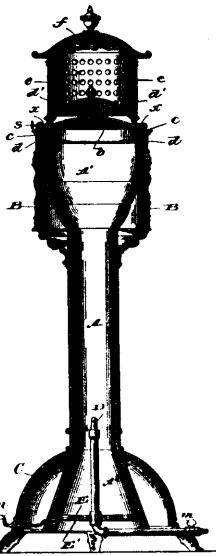
Lena Johnson, Key West, Florida, U.S.A., 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—1st. In a device of the character described, the combination with a chair provided with an apertured seat, of a removal seat provided with a receptacle designed to project through the aperture in the seat, substantially as set forth. 2nd. In a device of the character described, the combination with a chair having an apertured seat, of an adjustable seat provided with an aperture and with a series of minute apertures surrounding the same, a receptacle attached to the detachable seat and provided with a depending spout, substantially as specified. 3rd. In a device of the character described, the combination with a chair provided with a substantially semi-cylindrical aperture in its seat, of a detachable seat provided with a comparatively small substantially semi-cylindrical aperture, and a series of minute apertures surrounding the same and arranged in substantially semi-cylindrical form, and a semi-funnel shaped receptacle secured to the underside of the detachable seat and provided with a depending spout, substantially as specified. 4th. In a device of the character described, the combination with a chair provided with an apertured seat, of a detachable seat provided with an aperture and with a receptacle therebelow, a detachable water bag standard carried by the chair, and water bag supporting mechanism carried by the standards, substantially as specified. 5th. In a device of the character described, the combination with a chair provided with a seat having a substantially semi-circular aperture therein, of a removable seat flush with the surface of the first-named seat and provided with a semi-circular aperture surrounded by a series of minute apertures arranged in substantially semi-circular form, a semi-funnel shaped receptacle depending below the detachable seat and provided with a spout, a hinged side designed to facilitate the displacing or replacing of a receptacle beneath the spout, detachable water bag supporting mechanism, and a water bag supported thereby, substantially as specified. 6th. In a device of the character described, the combination with a chair, an apertured seat, a folding back and a folding foot-rest, of a detachable apertured seat designed to rest on the first-named seat and provided with a depending receptacle, a spout depending from said receptacle, and a detachable water bag standard provided with mechanism designed to support a water bag, substantially as specified.

No. 55,056. Trace Loop and Hook.*(Braccllet de harnais et crochet.)*

Samuel E. Purdum, Macomb, Illinois, U.S.A., 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

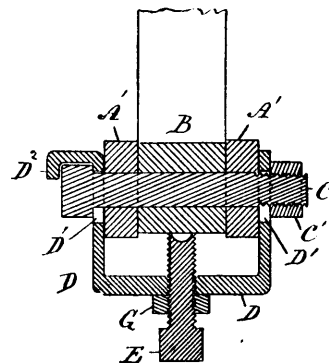
Claim.—1st. The combination with a strap, of the loops embracing the same and adapted to slide thereon, the elongated loop and the pivoted keeper, pivotally connected in the hook on the rear end of the loop, substantially as described. 2nd. The combination with the strap, of the loops embracing the same and adapted to slide thereon, the elongated loop and the pivoted keeper, the latter being provided with a depending portion adapted to pass through the loops into the strap, substantially as described. 3rd. The combination with the strap in two pieces, one above the other, of the loops embracing the upper and lower pieces of the strap, the loop extending from the upper loop and terminating at the other end in a loop embracing the upper strap, and a keeper pivotally mounted on the last mentioned loop, substantially as described. 4th. The combination with the strap in two pieces, one above the other, of the loops embracing the upper and lower pieces of the strap, the loop extending from the upper loop and terminating at the other end in a loop embracing the upper strap, and a keeper pivotally mounted on the last mentioned loop, and having depending pins, substantially as described. 5th. The combination with the strap in two pieces, one above the other, of the loops embracing the upper and lower pieces of the strap, the loop extending from the upper loop and terminating at the other end in a loop embracing the upper strap, and a keeper pivotally mounted on the last mentioned loop, and having depending pins and an elongated slot, substantially as described.

No. 55,057. Gas Stove for Heating, etc. (Poêle à gaz.)

55057

Robert Gilmour, Finlay, New York, State of New York, U.S.A., 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

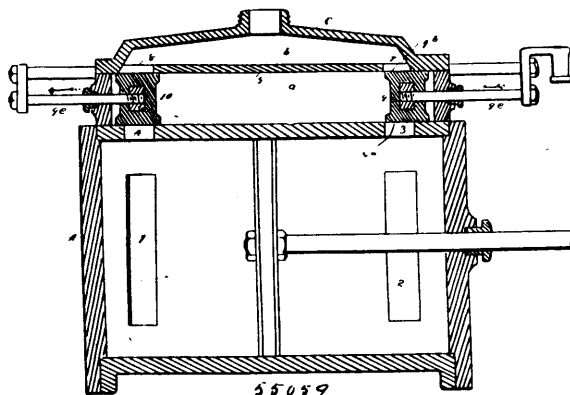
Claim.—1st. The combination with the mixing chamber, the inlets for supplying air and gas thereto and means for regulating the same, of the shallow contracted combustion-chamber, included between and formed by the back-fire screen and the finely perforated burner-plate placed immediately above and in close proximity to the screen, substantially as and for the purposes hereinbefore set forth. 2nd. The combination of the mixing-chamber, the inlets for supplying air and gas thereto and means for regulating the same, the back-fire screen *b* at the upper part of the mixing-chamber, the perforated burner plate *c*, immediately above the back-fire screen, and the reticulated or open-work cap *d*, surmounting the burner-plate. 3rd. In a gas-stove, a mixing-chamber, a perforated diaphragm or burner-plate closing the outlet of said chamber, and interposed between a back-fire screen on the one side, and a reticulated or open-work cap on the other side, the spaces included between said parts constituting primary and secondary combustion-chambers, substantially as and for the purposes hereinbefore set forth. 4th. The mixing chamber *A*, with expansion top *A*¹, and a bottom closed by the register *E*, *E*¹, and gas admission tip or tips *D*, in combination with the back-fire screen *b*, the burner plate *c*, and the cap *d*, all combined and arranged for joint operation, substantially as hereinbefore set forth.

No. 55,058. Thill Coupling. (Armon de limonière.)

55058

Alexander N. Cameron, Perth, Ontario, Canada, 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—1st. The combination with the axle clip having jaws *A*¹, *A*¹, and a thill iron journaled between said jaws by a coupling bolt *C*, passing therethrough, of the yoke *D*, having elongated holes *D*¹ near the ends, and said bolt passing through the holes to hold the yoke in place, and a clamp-screw *E*, screwing through said yoke and impinging the thill iron, and provided with a jam nut *G*, as set forth. 2nd. In combination with a thill coupling comprising a clip having jaws *A*¹, *A*¹, thill iron *B*, and coupling bolt *C*, passing therethrough, the yoke *D*, hung on said bolt and having elongated holes through which said bolt passes, and a belt end *D*², engaging the head of said bolt, and a clamp screw *E*, screwing through the yoke and impinging the thill iron, as set forth.

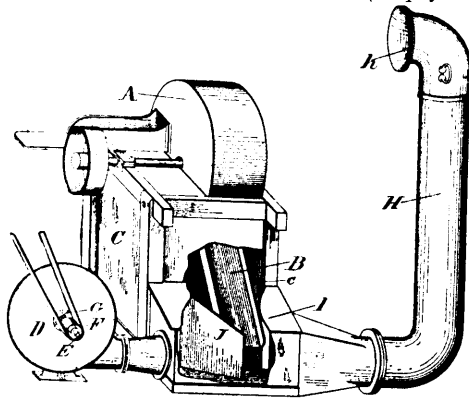
No. 55,059. Valve for Steam Engines.*(Soupape pour machines à vapeur.)*

55059

Robert S. Hill, Detroit, Michigan, U.S.A., 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—1st. In a steam engine, the combination of the cylinder, steam chest, and suitable ports and passage-ways, and independent slide valves for each port, means actuated by an eccentric to open the ports and by a relieving spring to close them, substantially as described. 2nd. In a steam engine, in combination with the cylinder, four independent slide valves, two adapted to the live steam ports and two to the exhaust ports, substantially as described. 3rd. In a steam engine, in combination with an eccentric and its rod, a pair of slide valves, adapted to be reciprocated by rock shafts and rock arms, connections between the rock shafts and the eccentric whereby the rock shafts are alternately actuated by the eccentric rod and released therefrom, substantially as described. 4th. In a steam engine, in combination with a slide valve, a rock shaft, a connection between the shaft and valve, a ratchet lever actuated by the eccentric adapted to engage the rock shaft and rotate it in one direction, and a spring adapted to rotate the rock shaft in the reverse direction, substantially as described. 5th. In a steam engine, in combination with a cylinder having an exhaust passage, a chamber having an exhaust outlet, and a double-faced slide valve adapted to close both passages synchronously, substantially as described. 6th. In a steam engine, in combination with a cylinder having an exhaust passage, a chamber into which the exhaust leads and provided with an outlet passage, a double-faced slide valve adapted to synchronously open and close both passages, said valves being adapted to engage against their respective seats, substantially as described.

No. 55,060. Feed Cutting Machine. (Coupe-fourrage.)

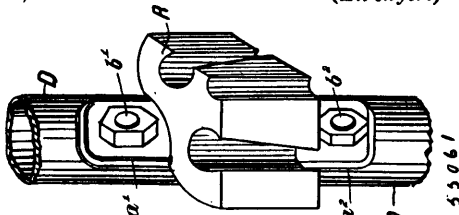


55060

Frank K. Bell, St. George, Ontario, Canada, 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—1st. In a feed cutting machine, the combination of the cover, an opening in the cover, a chute located below the cutting knives, adapted to receive the feed as it is cut and deliver it through the said opening, a blower, a stack connected with the blower and with the opening, arranged to allow of the air current forcing the cut feed through the stack, substantially as specified. 2nd. In a feed cutting machine, the combination of the feed cutter, a cover for the feed cutter, an opening through the cover, a chute located below the cutting knives to receive the feed as it is cut, a blower consisting of a casing, a revoluble fan mounted in the casing, a stack connected to the casing, an enlargement for the stack connected to the cover around the opening, a deflecting plate connected to one side of the opening and extending into the enlargement, substantially as specified.

No. 55,061. Metallic Bedstead. (Lit en fer.)



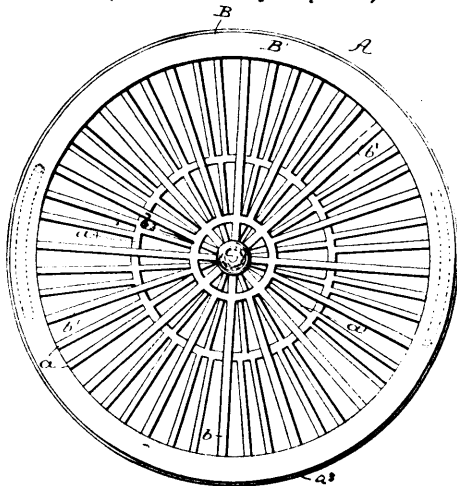
55061

Samuel Ilsley Whitfield, Birmingham, Worcester, England, 22nd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—In metallic bedsteads, the attachment of the dovetail junctions to the pillars substantially as and for the purpose set forth and shown upon the accompanying drawing.

No. 55,062. Rotary Grates for Stoves. (Grille rotatoire pour poêles.)

(Grille rotatoire pour poêles.)



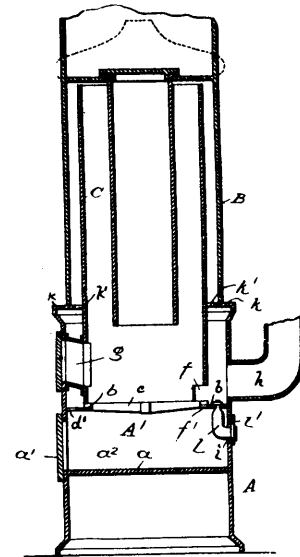
55062

Hermann Briesemeister, Berlin, Prussia, 23rd February, 1897; 6 years. (Filed 29th January, 1897.)

Claim.—1st. A stove grate comprising a circular perforate hub, and a superposed shaker sec-

tion having a central eye-bolt fitted to pass through said hub, and project below the same to receive a shaking rod, substantially as described. 2nd. A stove grate comprising a circular base section, having a segmental peripheral slot therein, and a superposed shaker section having a pin to fit said slot, and an eye-bolt passing through the centre of the base section, substantially as described. 3rd. A stove grate comprising a circular base section, having a series of radial inner ribs, an intermediate stay-ring, a series of double radial outer ribs branching from the ends of the inner ribs, a perforate central hub and a superposed shaker grate section having equally disposed alternate long and short ribs, an intermediate ring and a central eye-bolt passing through the centre of the base section, substantially as described.

No. 55,063. Stove. (Poêle.)



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Hermann Briesemeister, Berlin, Prussia, 23rd February, 1897; 6 years. (Filed 29th January, 1897.)

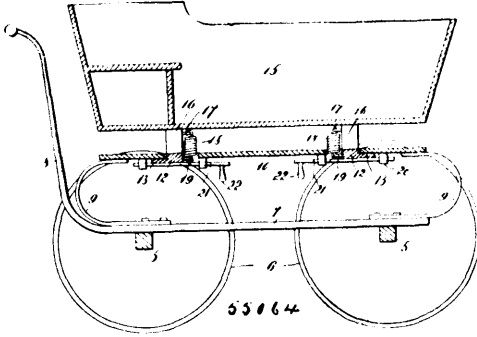
Claim.—1st. A stove having a base, having an intermediate fire plate and grate resting thereon, an intermediate combustion cylinder resting upon the grate and having a draft slot therein, an escape flue located opposite said slot and a counter draft tube connected with the outer air through the ash box, and with the fire plate between the draft slot and escape flue, substantially as described. 2nd. A stove having a base, an intermediate fire plate and grate, an inner combustion cylinder resting thereon, a counter draft tube fitted at its upper end in the fire plate and at its lower end in the wall of the fire box, draft openings in the fire box around the opening of said flue, and a cover plate provided with a central opening to cover said openings without covering the flue, substantially as described. 3rd. A stove having a base, an intermediate fire plate and grate, an inner combustion cylinder resting thereon, a counter draft tube connecting the wall of the fire box with the fire plate and provided with flue openings around said fire box connection with the flue, a cover plate provided with a central aperture and a second cover plate to close said central aperture, substantially as described. 4th. A stove having a base, an intermediate fire plate and grate resting thereon, a superposed inner combustion cylinder having a draft slot at the base thereof, an escape flue located opposite said draft slot, the said fire plate being provided with an ash discharge aperture below the draft slot of the combustion cylinder, substantially as described. 5th. A stove having a base, an intermediate fire plate and grate therein with draft apertures both above and below the fire plate and with apertures in said fire plate, a grate resting upon said fire plate, a combustion cylinder upon the grate and above the fire plate, a draft slot in the base of said cylinder and a direct escape flue located opposite said flue and connected with the base, substantially as described.

No. 55,064. Baby Carriage. (Voiture d'enfant.)

Thomas Alexander Evans, Marion, New Jersey, U.S.A., 23rd February, 1897; 6 years. (Filed 28th January, 1897.)

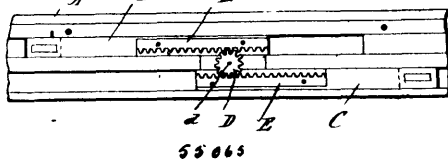
Claim.—1st. The combination in a baby carriage or similar vehicle, of a supporting plate or board provided with transverse slots or openings, and supported by springs connected with the frame of the vehicle, a bed or body for the vehicle mounted above said supporting plate or board, and provided with rockers, springs connected with said rockers and provided with transverse strips which are pivotally connected therewith and adapted to be supported in said slots or openings, and on which the rockers are adapted to rest, and means for holding said strips in said slots or openings, substantially as shown and described. 2nd. The combination in a baby carriage

or similar vehicle, of a supporting plate or board provided with transverse slots or openings, and supported by springs connected



with the frame of the vehicle, a bed or body for the vehicle mounted above said supporting plate or board, and provided with rockers, springs connected with said rockers, and provided with transverse strips which are pivotally connected therewith and adapted to be supported in said slots or openings, and on which the rockers are adapted to rest, and means for holding said strips in said slots or openings, consisting of locking yokes, which are passed through keepers connected with the bottom of the supporting plate or board, substantially as shown and described. 3rd. The combination with the frame of a baby carriage or similar vehicle, of a suitable support connected therewith by means of springs, said supports being provided with transverse slots or openings, a bed or body adapted to be supported thereover, and provided with rockers, which are adapted to pass through said slots or openings, said rockers being provided with spiral springs which are pivotally connected therewith, and to the lower end of which are pivotally connected strips which are adapted to be supported in said slots or openings, substantially as shown and described.

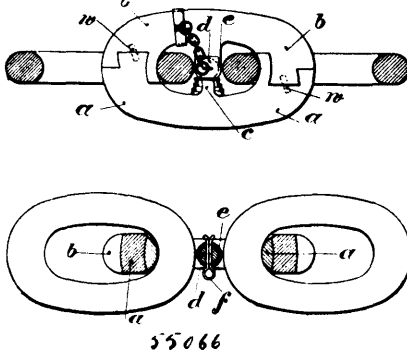
No. 55,065. Window. (Fenêtre.)



William Henry Smith, Penetanguishene, Ontario, Canada, 23rd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—The combination, with a window frame, and an upper and a lower sash slidable in the said frame, of a toothed pinion carried by the frame between the sashes, and toothed racks secured to the respective sashes and gearing into the said pinion, substantially as set forth.

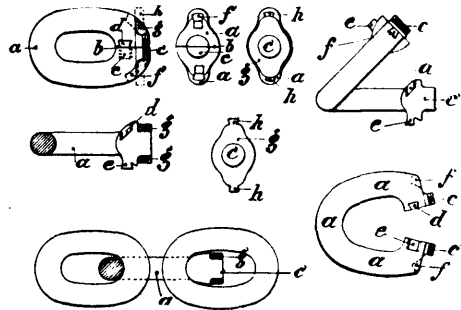
No. 55,066. Coupling Shackle or Link. (Maille.)



Otto Klatte, Neuwied, Germany, 23rd February, 1897; 12 years. (Filed 30th January, 1897.)

Claim.—1st. A coupling link or shackle divided at one or both ends longitudinally and connected by a dovetail joint, and an adjustable stay bar crossing the interior of the link to lock the joints, substantially as set forth. 2nd. A coupling link in two separable halves longitudinally connected at the meeting ends by a dovetail joint, and an elongating stay bar crossing the link internally and forcing the sides apart to lock the joints, substantially as set forth. 3rd. A coupling link, consisting of two longitudinal halves of an oval link joined by an interlocking connection and a stay bar expanded longitudinally against opposite sides of the link, to lock or tighten the connections, substantially as set forth.

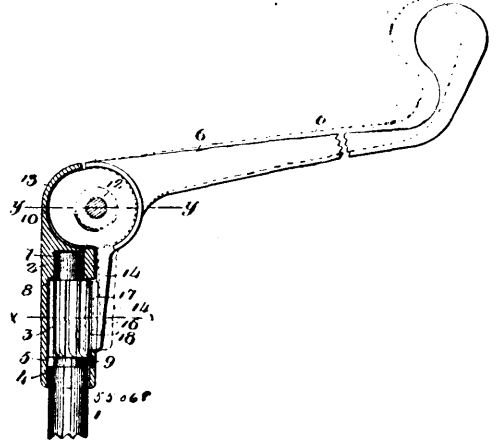
No. 55,067. Connecting Link. (Maille pour chaînes.)



Otto Klatte, Neuwied, Germany, 23rd February, 1897; 12 years. (Filed 30th January, 1897.)

Claim.—1st. A connecting link for chains, separable at one end closed by a bolt or nut screwing thereon, and interlocking connections, substantially as set forth. 2nd. A connecting link having a split and thickened end provided with a screw-threaded neck, a winged nut screwing thereon, and interlocking connections, substantially as set forth. 3rd. A connecting link having an open end spirally twisted to admit a chain, and overlapping when closed, a screw-hole in the overlapping ends, a screw therein, and interlocking connections, substantially as set forth.

No. 55,068. Brake Handle. (Manche de frein.)



John D. Waldran, St. Louis, Missouri, U.S.A., 23rd February 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a brake staff and handle therefor, a suitable brake staff, a ratchet carried thereby having teeth disposed parallel to the axis of rotation of the staff, a socket loosely passed over the ratchet, a brake handle pivotally carried by the socket, and a pawl carried by the handle adapted to normally engage with the teeth of the ratchet and adapted to be disengaged from the said teeth upon movement of the handle in one direction, substantially as set forth. 2nd. In a brake staff and handle therefor, a suitable brake staff, a ratchet carried thereby and having teeth disposed substantially parallel with the axis of rotation of the staff, a socket adapted to be passed over the ratchet, a handle pivoted to said socket, an arm depending from the handle below the pivotal point of the latter, and a pawl carried by the depending arm, the parts operating substantially as and for the purpose set forth. 3rd. In a brake staff and handle therefor, a brake staff, a ratchet carried thereby and having teeth disposed substantially parallel with the axis of rotation of the staff, a socket for said ratchet rotating freely about the staff, one side of the socket being open, a chamber having lateral bounding walls formed at the upper end of the socket, an arm depending from the base of the handle and carrying a pawl, the parts operating substantially as and for the purpose set forth. 4th. In a brake handle, a handle proper, adapted to be pivotally mounted on top of a brake staff, an arm depending from the pivotal base of the handle, a plate carried by the arm, and a deflected wing forming a part of the plate, said wing being tapering from its base upward, and having a ratchet-engaging bevel edge, substantially as set forth.

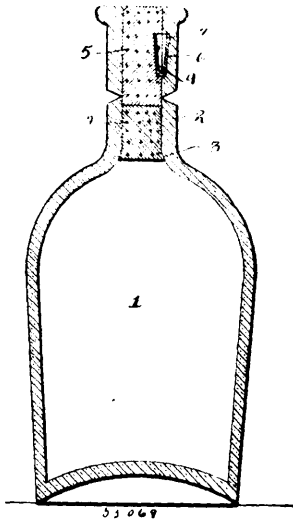
No. 55,969. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)

Richard Wilmer, Shandon, Ohio, U.S.A., 23rd February, 1897; 6 years. (Filed 1st February, 1897.)

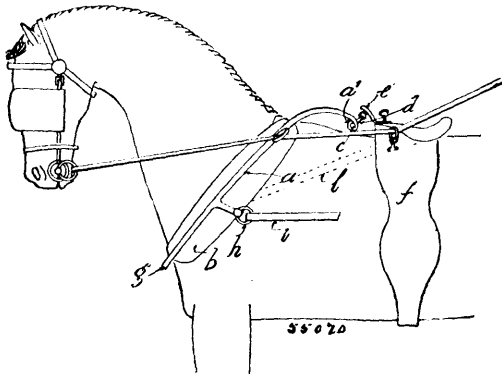
Claim.—1st. The combination with a bottle and its stopper, of co-operating securing mechanism carried by said elements and design-

ed to prevent the removal of the cork, substantially as specified.
2nd. In a device of the character described, the combination with



a bottle having a constricted neck, of a comparatively small compressible stopper, an annular recess in the interior of the neck, a stopper designed to fit snugly within the neck of the bottle and provided with a spring adapted to engage the annular recess, substantially as specified. 3rd. The combination with a bottle having a constricted neck, and an annular interior recess, of a comparatively small stopper retained at the point of constriction, a stopper designed to fit snugly within the neck of the bottle and provided with a longitudinal recess, and a leaf spring bent upon itself and seated in said recess, substantially as and for the purpose specified.

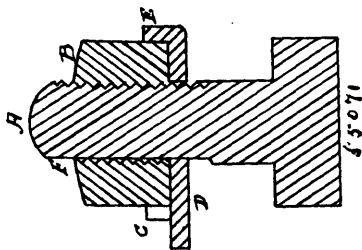
No. 55,070. Horse Collar. (Collier de cheval.)



John Smith Hainsworth, London, England, 23rd February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—A horse collar consisting of a frame *a* carrying bearing pads *b* upon either side of said frame so as to leave the junction of the neck and shoulders of the animal (known as the withers) and the throat or windpipe free from constant frictional contact, the upper ends of said frame being secured to the saddle so as to support the collar.

No. 55,071. Nut-lock. (Arrête-écrou.)

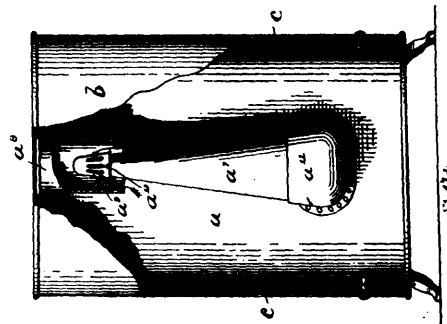


Frederick Brown and Charles W. Jarvis, both of Fort William, Ontario, Canada, 23rd February, 1897; 6 years. (Filed 28th January, 1897.)

Claim.—The combination in a bolt, nut and washer substantially as described, of a nut with a toothed or serrated flange on its lower side, with a star-shaped washer the points or tangs of which, when

turned up engage one or more of the teeth in the flange on the lower side of the nut, substantially as and for the purpose herein before set forth.

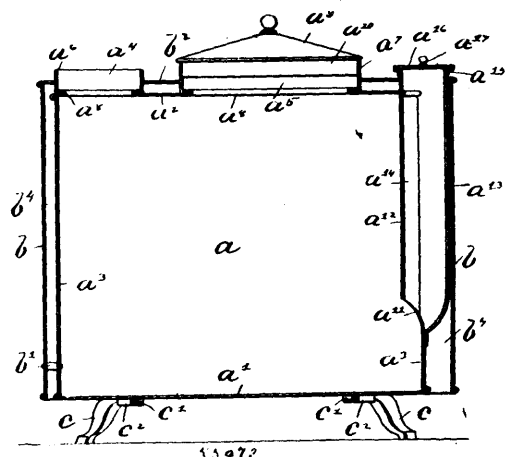
No. 55,072. Heating Stove. (Poêle.)



The Wonder Manufacturing Company, assignee of Henry H. Brown, Albert S. Glascock, Richard S. Quinn and James W. Brown, all of Washington C. H. Ohio, U.S.A., 23rd February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a stove having a fuel chamber, an outer casing as described, to form a heating chamber about said fuel chamber, a pocket in said heating chamber, and a draft tube extending from said pocket downwardly through said heating chamber so as to enter said fuel chamber, substantially as specified. 2nd. The combination with the fuel chamber having the supply and discharge openings in the top thereof, as described, a jacket surrounding said fuel chamber, and a heating chamber in said jacket, a draft tube in said heating chamber, said tube being adapted to open into said heating chamber near the top thereof and extend downwardly and communicate with said fuel chamber near the bottom, substantially as specified. 3rd. The combination with the fuel chamber and the heating chamber surrounding the same, a pocket in the upper portion of said heating chamber and a draft tube extended into said pocket and connecting with the lower portion of said fuel chamber and means for opening and closing the top of said fuel chamber, substantially as specified. 4th. The combination with the fuel chamber, the heating chamber, and a pocket in said heating chamber, a draft tube extending into said pocket and having means for regulating the supply thereto, said draft tube being tapered from the top downwardly and communicating with said fuel chamber at or near the bottom thereof, substantially as specified. 5th. The combination with a fuel chamber and a jacket surrounding the same, a supply opening in the top of said fuel chamber and a smoke flue also extending in the top of said fuel chamber, a pocket within said jacket and a draft tube extending in said pocket, a register in the top of said draft tube within said pocket, said draft tube being extended downwardly from said pocket between the jacket and fuel chamber and communicating with said fuel chamber at or near the bottom, substantially as specified.

No. 55,073. Heating Stove. (Poêle.)



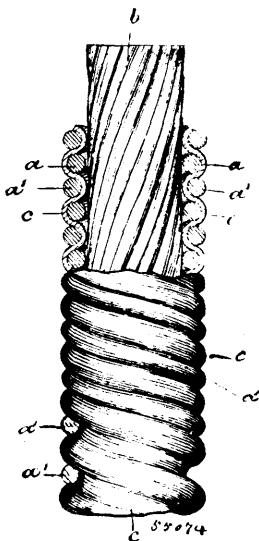
The Wonder Manufacturing Company, assignee of Henry H. Brown, Albert Glascock, Richard S. Quinn and James W. Brown, all of Washington C. H., Ohio, U.S.A., 23rd February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a heating stove, the combination with a fuel chamber, and a jacket surrounding the same with an air space between, supporting legs for said stove having projecting lugs adapted to fit in loops secured to the bottom of said fuel chamber, said legs being extended so as to

rest under and support the jacket on the outside of said fuel chamber, substantially as specified. 2nd. In a heating stove, the combination with a fuel chamber having supply and smoke openings in the top, and a jacket surrounding the sides and top of said fuel chamber, a draught opening near the bottom of said fuel chamber, and a flue extending from said draught opening to the top of said stove, said flue being formed partly by a depression in the side of said fuel chamber and partly by a metallic section secured thereto and being within said jacket, and a damper at the top of said flue, substantially as specified. 3rd. In a heating stove, the combination with a fuel chamber having supply and smoke openings in the top as described, and a draught opening near the bottom thereof, a flue extending from said draught opening to the top of said stove, said flue being formed partly by a depression in the side of said fuel chamber and partly by a metallic section joined to the outside thereof, a frame secured to the top of said flue, and a pivoted cover on said frame to form a damper therefor, and a jacket surrounding the top and sides of said fuel chamber and enclosing said flue, substantially as specified.

No. 55,074. Insulation of Electric Cable.

(Isoloir pour cables électriques.)



Max Guilleaume, Mulheim-on-the-Rhine, Germany, 23rd February, 1897; 6 years. (Filed 14th March, 1896.)

Claim.—1st. In an electric cable, the combination with the conductor *b*, of the inner and outer windings *a*, *a'*, of fibrous material and the intervening serving of insulating material *c*, arranged inside and outside alternate convolutions of the windings *a*, *a'*, substantially as and for the purpose set forth. 2nd. An electric cable or conductor furnished with insulating material arranged inside and outside alternate convolutions of windings of fibrous material.

No. 55,075. Incandescent Mantle.

(Pellicule incandescente.)

Peter Stiens, Leyton, Essex, England, 23rd February, 1897; 6 years. (Filed 16th March, 1896.)

Claim.—1st. An incandescent mantle comprising in its construction magnesium chloride which has been exposed to a high temperature. 2nd. An incandescent mantle formed of magnesium chloride, which has been exposed to a high temperature, burnt chalk and adhesive material. 3rd. The process of manufacturing mantles, consisting in exposing magnesium chloride to a high temperature, grinding it with burnt chalk and adhesive material, moulding it under pressure, covering it with a solution of magnesium chloride and again exposing it to heat. 4th. The process of manufacturing mantles consisting in impregnating threads or woven material with magnesium chloride which has been exposed to a high temperature, drying them and covering them with a solution of magnesium chloride and again exposing them to heat.

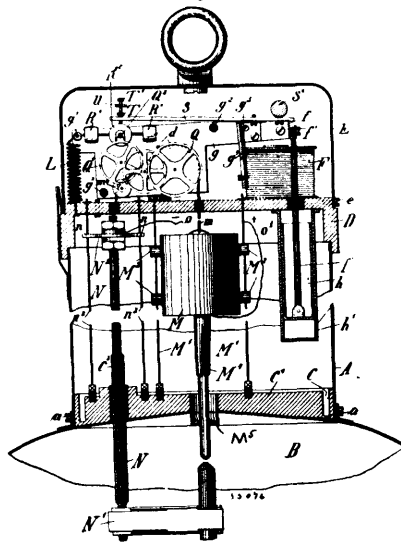
No. 55,076. Regulator for Electric Lamps.

(Régulateur pour lampes électriques.)

Hermann Baurlin, Aarburg, Switzerland, 23rd February, 1897; 6 years. (Filed 4th May, 1896.)

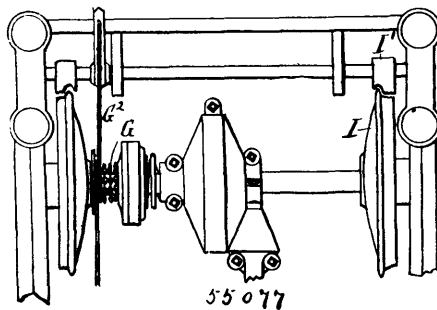
Claim.—An electric arc lamp where the carbons distance is regulated by an electric magnet connected by a shunt conduit with the main current conduit, said magnet having a keeper containing a clock work with pendulum escapement moved by the weight of the top carbon clamp, the latter being suspended with a strip to a rope

pulley of the clock work whilst the other end of said strip is attached to the lower carbon clamp; said keeper having upon its top



a by-keeper whose extremity oppositely to the magnet presses against a fraction wheel of the clock work, substantially as set forth.

No. 55,077. Electric Brake. (Frein électrique.)

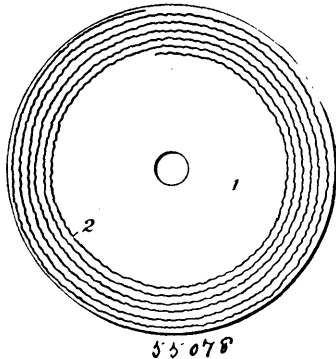


The General Electric Co., Schenectady, New York, assignee of Elmer Ambrose Sperry, Cleveland, Ohio, both in the U.S.A., 24th February, 1897; 6 years. (Filed 14th February, 1896.)

Claim.—1st. In an electric brake for an electro-motor driven rotating mechanism, said motor being supplied with a controller and operating handle, means for disconnecting the motor entirely from its source of electrical supply, means for reversing the circuit relation of the armature and the field, means for connecting the terminals of such motor upon a local circuit containing a variable resistance and means for utilizing the current for frictionally arresting the motion of such rotating mechanism, and means for varying the resistance within said local circuit, said means all being actuated by the movement of the said operating handle of the controller. 2nd. In an electric brake, a brake reel, a magnet co-operating therewith surrounding the axle, a crescent-shaped groove sunk in the face of such magnet, and independent coils within such groove on opposite sides of the axle. 3rd. A disc-like electro-magnet arranged for lateral presentation consisting of a plurality of magnetic units, each having three curved polar faces, one being inner or near the centre, another being outer or farthest removed from the centre, and a third being arranged between the two separate magnetizing coils suitably arranged about each middle pole, the said middle pole being of opposite polarity to the other two. 4th. In an electric brake, a coil mounted on an axle, a separable casing for such coil provided with lugs for grasping an insulating disc, a disc, and an electric contact borne by said disc. 5th. The combination, with an electric motor, of a rheostat or variable resistance, means for cutting off all communication between the motor and the source of electric supply, and suitable means other than the motor or its parts for maintaining the direction of the current through the field magnets the same when the motor is used as a generator as when used for a motor, and for directing the current so generated through the said rheostat, a local circuit, and a brake magnet coil for said local circuit. 6th. The combination, with an electric motor, of a reversing switch *d*, *d'*, whereby the direction of the current through the field magnets of the motor can be controlled so as to remain the same when the motor is used as a generator as when used as a motor, the brake switch *C* so arranged to open the line and close a local circuit, a rheostat or variable resistance, and a brake magnet coil, substantially as described. 7th. The combination, with an electric motor having two elements

namely, the stationary and a rotating element, of a rheostat or variable resistance, a reversing switch separate from the motor and connected to one of the elements, a centrally pivoted switch arm, a local circuit and a brake magnet coil in the local circuit. 8th. The combination, with an electric motor, a circuit, and a brake magnet coil in said circuit, of a switch consisting of a single moving arm adapted when in one of its active positions to open the line circuit and close a local circuit through a rheostat the said magnet coil and the motor, and when in the other of its active positions, to open the local circuit and close the line circuit through the rheostat and the motor, and means other than the motor or its parts for reversing the current direction through the coils of such motor, substantially for the purpose specified. 9th. The combination, with an electric motor, of a rheostat R, a brake magnet coil as (G'), the reversing switch d, d', the brake switch C, and suitable mechanical connection between the latter two whereby the switches may be operated simultaneously, substantially for the purpose specified. 10th. The combination, with an electric motor, of a rheostat, a local circuit, a brake magnet coil in said local circuit, a reversing switch, a brake switch, mechanical connection between the two switches, and means for adjusting the relative positions of the switches mechanically whereby the reversing switch may be reversed without affecting the operation of the brake switch. 11th. The combination, with an electric motor, of a variable resistance, a local circuit, a brake magnet coil, a brake switch arranged so that when the braking action is taking place the line circuit is open, the blade of said switch being permanently in connection with the variable resistance, and suitable electrical connection between the said variable resistance and the brake magnet coil, switch and motor, substantially as described. 12th. A disc-like electro-magnet, arranged for lateral presentation, consisting of three curved polar faces, one being inner, or near the centre, another being outer, or farthest removed from the centre, and a third being arranged between the two, a magnetizing coil suitably arranged about the middle pole, the said middle pole being of opposite polarity to the other two. 13th. In a disc-like electro-magnet arranged for lateral presentation, consisting of a plurality of magnetic units each having three curved polar faces, one being inner or near the centre, and another being outer or farthest removed from the centre, and a third arranged between the two, separate magnetizing coils suitably arranged about the middle pole, in combination with a multiple or circuit connection between said coils.

No. 55,078. Method of Making Copies of Sound Records. (Appareil à enregistrer les sons.)



Emile Berliner, Washington, Columbia, U.S.A., 24th February 1897; 6 years. (Filed 7th December, 1895.)

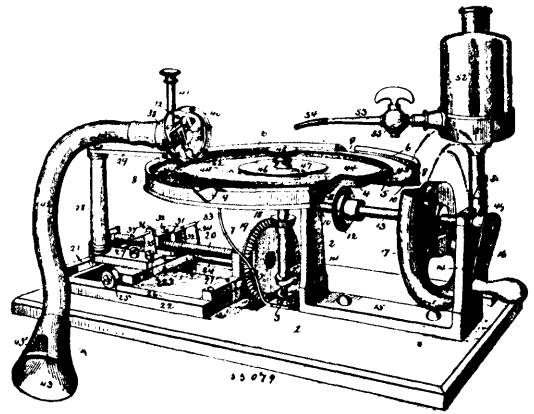
Claim.—1st. The process of duplicating flat sound records, which consists in depositing copper or other like metal on an original record, then detaching the copper reverse thus produced and facing the same with a layer of hard metal which is not attacked by sulphur, and then pressing the reverse into temporarily softened hard rubber, substantially as described. 2nd. The process of duplicating flat sound records which consists in facing an electro-deposited reverse of a record, with nickel or iron, and then pressing this reverse into hard rubber, substantially as described. 3rd. As an article of manufacture, a sheet of hard rubber having upon its face an undulatory groove of even depth representing sound waves, substantially as described. 4th. As an article of manufacture, a sheet of hard rubber having pressed into its face an undulatory line of even depth representing sound waves, substantially as described. 5th. A copy of flat sound record, which consists of a disc of hard rubber having impressed upon its face the lines representing the record, substantially as described.

No. 55,079. Gramophone. (Gramophone.)

Emile Berliner, Washington, Columbia, U.S.A., 24th February, 1897; 6 years. (Filed 7th December, 1895.)

Claim.—1st. The method of recording vocal and other sounds which consists in removing from a record tablet covered with a fatty film, undulatory lines of said film by and in accordance with the sound waves and maintaining at the same time a layer of a fluid

over the film, substantially as described. 2nd. The method of recording vocal and other sounds upon a rotating disc covered with



a fatty film, which consists in spreading over said film and continuously renewing over the same a layer of a fluid and at the same time removing from said tablet undulatory lines of the fatty film by and in accordance with the sound waves, substantially as described. 3rd. The improvement in the art of making a gramophone record, which consists in immersing and maintaining the tablet and the point of the recording stylus in alcohol during the process of recording, substantially as described. 4th. The improvement in the art of making and fixing a gramophone record, which consists in removing from a tablet covered with a fatty film, undulatory lines of said film by and in accordance with sound waves while said film is covered with a layer of alcohol, then immediately removing the alcohol with water and then subjecting the tablet to the action of an etching fluid, substantially as described. 5th. The method of reproducing sounds from a record of the same which consists in vibrating a stylus and propelling the same along the record by and in accordance with the said record, substantially as described. 6th. In a gramophone, a recording stylus pressing by its own elasticity upon the record tablet at right angles to the plane of its vibratory movements and consisting of a leaf spring terminating in a point of harder material than that of the body of the stylus, substantially as described. 7th. In a gramophone, the combination of a sound receiving diaphragm and an elastic recording stylus controlled by the diaphragm and adjustable with reference to a record tablet so as to press by its own elasticity upon the same at right angles to the plane of its vibratory movements, substantially as described. 8th. In a gramophone, a recording stylus pressing by its own elasticity upon the record tablet at right angles to its plane of vibratory movements, and consisting of a leaf spring terminating in an iridium point, substantially as described. 9th. In a gramophone, a recording stylus composed of a leaf spring terminating in a tracing point in combination with one or more elastic non-sonorous dampers, substantially as described. 10th. In a gramophone, a recording stylus formed of a leaf spring terminating in a tracing point in combination with one or more sleeves of soft rubber upon the leaf spring for damping the same, substantially as described. 11th. In a gramophone, the combination of a sound receiving diaphragm, a lever and a recording stylus carried by the same, both extending parallel but eccentrically over the diaphragm, with a connection between the centre of the diaphragm and the lever, substantially as described. 12th. In a gramophone, the combination of a sound receiving diaphragm, a lever and a recording stylus carried by the same, both extending over the face of the diaphragm but eccentrically thereto, with a rigid connection between the centre of the diaphragm and the free end of the lever, substantially as described. 13th. In a gramophone, the combination of a circular sound receiving diaphragm, a lever and an elastic recording stylus, both extending parallel with the diaphragm on the line of a chord, with a rigid connection between the centre of the diaphragm and the free end of the lever, substantially as described. 14th. In a gramophone, the combination of a sound receiving diaphragm, a lever and an elastic stylus carried by the same both extending parallel, but eccentrically thereto, with a bracket rigidly connected with the centre of the diaphragm and removably cemented to the lever, substantially as described. 15th. In a gramophone, the combination of a sound receiving diaphragm mounted in a suitable frame, a bracket adjustably mounted on said frame, a lever pivoted in said frame extending parallel to and eccentrically with reference to the centre of the diaphragm, and an elastic recording stylus carried by the lever, with a mechanical connection between the centre of the diaphragm and the free end of the lever, substantially as described. 16th. In a gramophone, a sound receiving diaphragm and a tube for conveying sound waves thereto in combination with a recording stylus receiving motion from the diaphragm, and a screw mounted in the sound conveying tube bearing centrally upon the diaphragm for adjusting the tension of the latter, substantially as described. 17th. In a gramophone, the combination of a horizontal rotary table adapted to support a record tablet, and a vertical shaft free to move longitudinally, carrying the

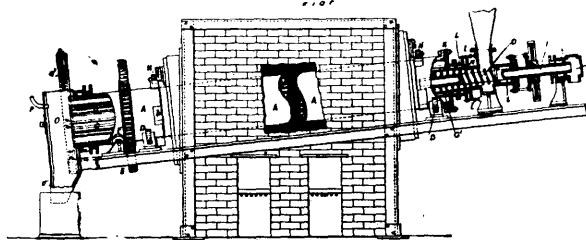
table, with a friction disc engaged by the underside of the table for rotating the latter, substantially as described. 18th. In a gramophone, the combination of a horizontal rotary table mounted upon a vertical shaft and adapted to support a record tablet, with a friction disc engaging the underside of the table and partly sustaining the weight of the table, whereby the latter is automatically maintained in frictional gear with said disc, substantially as described. 19th. In a gramophone, the combination of a rotary horizontal table adapted to receive and support a flat record tablet, with a reservoir of a suitable fluid, such as alcohol, discharging upon the centre of the table and tablet, and an annular pan disposed underneath the table for receiving the overflow of alcohol, substantially as described. 20th. In a gramophone, the combination of a horizontal rotatable table adapted to receive and support a record tablet, with a reservoir of alcohol discharging upon the centre of the table and tablet, an annular pan disposed under the edge of the table for receiving the overflow of alcohol, and a friction disc bearing upon the under side of the table between the centre of the same and the inner wall of the pan, substantially as described. 21st. In a gramophone, the combination of a horizontal rotary table adapted to receive and support a record tablet, a recording diaphragm and stylus connected by gearing with the table to move radially over and with the stylus in operative relation to the same, substantially as described. 22nd. In a gramophone, the combination of a horizontal rotating table adapted to receive and sustain a flat record tablet, with a carriage movable in a line parallel to a radius of the table, a recording diaphragm and stylus carried by the carriage with the stylus in operative contact with the record tablet, and gearing connecting the table with said carriage, substantially as described. 23rd. In a gramophone, a sound conveying tube provided with a mouth-piece having a flaring opening for the application of the mouth of the speaker and a perforation in the side wall of the mouth-piece separated from and spaced with reference to the mouth opening and shaped to correspond to the shape of the nostrils of the speaker, substantially as described. 24th. In a gramophone, a sound reproducing diaphragm in combination with a stylus lever extending diametrically across the same, and elastic in two directions at right angles to each other, substantially as described. 25th. In a gramophone, the combination of a diaphragm and a stylus carrier composed of a leaf spring twisted at one point so as to bring the edge of one portion at right angles to the face of the other portion, whereby it is elastic in two directions, substantially as described. 26th. In a gramophone, the combination of a reproducing diaphragm and stylus, with a stylus carrier composed of a leaf spring extending flat-wise over the face of the diaphragm and edgewise over the edge of the diaphragm, substantially as described. 27th. In a gramophone, the combination of a reproducing diaphragm mounted in a suitable frame, the latter being provided at one point with a boss or stop, with a double elastic stylus carrier composed of a twisted leaf spring tending toward the diaphragm and against the boss or stop, substantially as described. 28th. In a gramophone, a reproducing diaphragm and stylus in combination with an elastic stylus carrier extending over the face of the diaphragm and tending toward the same, of an adjustable connection between the diaphragm and stylus carrier and adjustable for varying the pressure between diaphragm and style carrier, substantially as described. 29th. In a gramophone, the combination of a reproducing diaphragm mounted in a suitable frame provided with a boss or stop, with a double elastic stylus carrier tending toward the diaphragm and toward the stop, and elastic non-resonant dampers interposed between the style carrier and the diaphragm and between the style carrier and the frame and stop, substantially as described. 30th. In a gramophone, a sound reproducing diaphragm and a sound-conveying tube for the same, with one or more non-resonant perforated diaphragms in the said tube for reducing the volume of sound conveyed to the ear, substantially as described. 31st. In a gramophone, a recording stylus pivoted to move in response to the vibrations of a diaphragm and elastic in a plane at right angles to such motions, substantially as described. 32nd. In a gramophone, a reproducing stylus having a wedge-shaped point engaging the walls of the record groove, substantially as described. 33rd. In a gramophone reproducer, a stylus carried or formed by a spring fixed at one end to the diaphragm holder and freely extending across and beyond the same and operatively connected with the centre of the diaphragm, substantially as described. 34th. In a gramophone reproducer, a spring constituting or carrying a stylus, fixed at one end to the diaphragm holder and extending across and beyond the periphery of the same and freely pressing against the diaphragm, substantially as described. 35th. A sound reproducing apparatus, consisting of a travelling tablet having a sound record formed thereon and a reproducing stylus shaped for engagement with said record and free to be vibrated and propelled by the same, substantially as described.

No. 55,080. Apparatus for the Decomposition of Alkaline Nitrates. (*Appareil pour la décomposition de nitrate d'alcalin.*)

Henry Kennett Baynes, London, S. W., England, 24th February, 1897; 6 years. (Filed 12th February, 1896.)

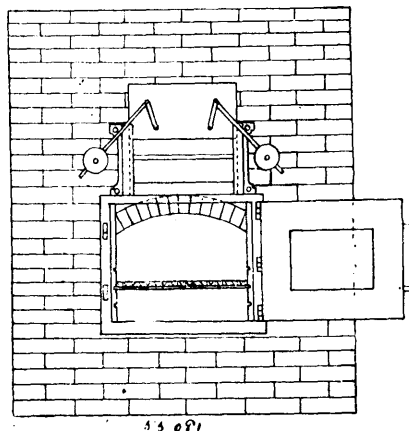
Claim.—1st. The herein described continuous method of decomposing alkali nitrate in admixture with ferric oxide, which consists in subjecting the pulverulent mixture in the form of a thin stream,

film, or layer, to frequently repeated contact with the heated surface of a retort wherein it is repeatedly showered down and through



which it is caused to travel, substantially as specified. 2nd. In the generation of nitrous fumes by the decomposition of an alkaline nitrate in admixture with ferric oxide, the method of sweeping out the nitrous fumes as fast as they are generated, by blowing air or steam into the retort, as specified. 3rd. The apparatus for effecting the decomposition of alkaline nitrate by the herein described method, consisting of a retort provided with longitudinal internal ribs mounted to revolve upon an inclined axis and provided with means of continuously feeding the matter to be treated and of separately removing the gaseous and solid products of the decomposition, substantially as specified. 4th. The combination, with an inclined revolving retort used for decomposing alkaline nitrate as described, of hammers for periodically producing a shock or jar as by a blow, for the purpose of detaching the particles adherent to the surface of the retort, substantially as specified. 5th. The herein described means of making an air and gas tight joint between the revolving and stationary part of the retort, consisting of a spring pressed end face joint permitting freedom of expansion of the retort, substantially as specified.

No. 55,081. Baking Oven. (Four.)



Heinrich Sommers, Kiel, Prussia, Germany, 24th February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. A baking oven having a furnace with a double grate, in combination with a tapering flue *c* through which the gases escape from the fuel to the baking chamber so that they are compressed in their passage through the flues and their complete combustion is ensured, constructed and arranged substantially as hereinbefore described. 2nd. In a baking oven the combination with a furnace containing two grates, *a* and *b*, one in front and the other in the rear of the front one, of the oven *d* located above the furnaces, and a flue connecting the oven, with the furnace enlarged near the furnace, and contracted as it approaches the oven whereby the fuel may be first burnt in grate *a*, then removed whilst still flaming into grate *b*, and the heated gases compressed in their passage to the oven.

No. 55,082. Annealing Steel and Malleable Iron Casting. (*Méthode de recuire l'acier et la fonte malleable.*)

William Henry Trengrove, Canterbury, New Zealand, 24th February, 1895; 6 years. (Filed 13th June, 1896.)

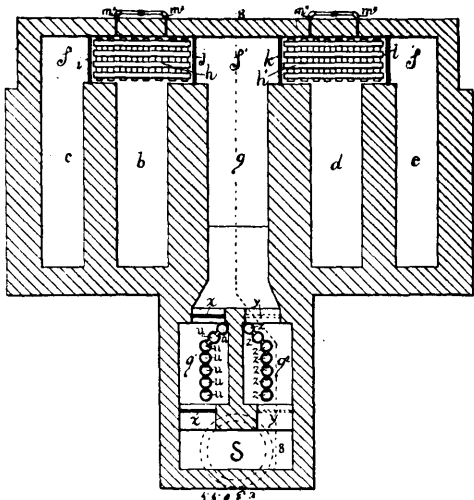
Claim.—The method of annealing articles of cast steel and malleable iron consisting of enveloping them in asbestos and subjecting them to heat in an ordinary annealing furnace, substantially as specified.

No. 55,083. Smelting Furnace. (Fourneau de fusion.)

Matilda L. Trapp, Tacoma, Washington, U.S.A., 24th February, 1897; 6 years. (Filed 25th August, 1896.)

Claim.—1st. In a smelting furnace having two sets of flues and two sets of superheating chambers as herein described, and alter-

nately used, one set as the passage of the fuel gas and air to the hearth, and the other set as the passage of the waste products of



combustion from the hearth to the smoke stack, for the purpose of superheating the gas and air as set forth, the combination of the lattice work of refractory material arranged in two sections of the connecting flue as shown and described, the gates and valves for reversing the draft and air supply, the reversing gear with pipe connections to supply steam and oil alternately to one or the other side of the furnace as described, all for the purpose of utilizing the heat of the waste products of combustion to manufacture the fuel gas wholly within the furnace as shown and set forth. 2nd. In a smelting furnace having two sets of flues and superheating chambers in communication with the furnace hearth, arranged in alteration to permit one set to be used for the passage of air and fuel gas to the hearth, and the other set for the passage of the waste products of combustion from the hearth to the smoke-stack, the combination therewith of flues containing lattice work of refractory material, steam pipe connections opening into said flue to permit the steam to be superheated before entering the superheating chambers in which the oil is vapourized, oil pipe connections opening into the oil vapourizing chamber to permit the oil to be vapourized before the superheated steam combines therewith, valves and gates for reversing the draft and the air supply, and reversing mechanism for supplying steam and oil in alteration to the steam superheating flues and oil vapourizing chambers, substantially as shown and for the purposes described. 3rd. In a smelting furnace having two sets of flues and superheating chambers in communication with the furnace hearth arranged in alteration to permit one set to be used for the passage of air and fuel gas to the hearth, and the other set for the passage of the waste products of combustion from the hearth to the smoke-stack, and a smoke flue leading to the smoke stack, the combination therewith of a plurality of refining flues interposed between the said smoke flue and smoke-stack provided with gates to cut off the waste products of combustion from one of the refining flues while permitting it to pass through the other, refining crucibles in each of the refining flues to receive the melted bullion drawn from the hearth, said crucibles being thereby heated by the waste products of combustion in their passage to the smoke stack and the heat of said products being utilized for superheating and refining the precious metals of the bullion, substantially as and for the purposes shown.

No. 55,084. Process of Preparing and Preserving Fish Liver. (*Procédé pour préparer et préserver les foies de poisson.*)

Carl Mathias Ulstrup Dable, Stamsund, Lofoten, Norway, 24th February, 1897; 6 years. (Filed 2nd November, 1896.)

Claim.—1st. The washing of the liver with boiled water. 2nd. Drying by a temperature of 25° 45° C., with a following treatment with a sterilized common salt solution. 3rd. Drying and boiling in oil or under vacuum in oil mixed water, for the purpose set forth.

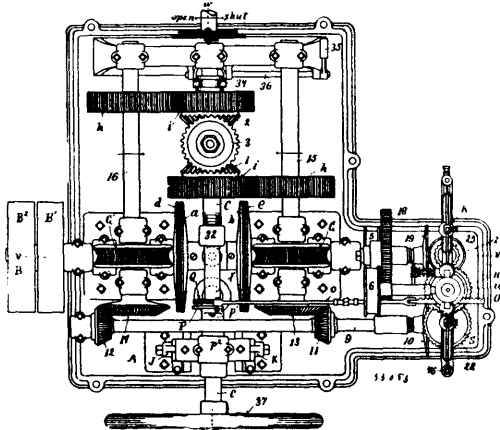
No. 55,085. Electric Water Wheel Governor.

(*Gouverneur électrique pour roues hydrauliques.*)

The Stilwell-Bierce & Smith-Vaile Co., assignee of Arthur Giesler, all of Dayton, Ohio, U.S.A., 24th February, 1897; 6 years. (Filed 21st May, 1896.)

Claim.—1st. In a machine for controlling the movement of water wheel gates, a governor positively driven and operating terminals of an electric circuit, which in turn operate shipping mechanism for driving a transmitting shaft in either direction, substantially as specified. 2nd. In a device for operating water wheel gates, the combination with a positively driven governor, of two electric circuits, two terminals operated by the governor, an electro-magnet in

each circuit, an armature operated by said magnet and connected to and operating shipping mechanism, substantially as specified. 3rd.

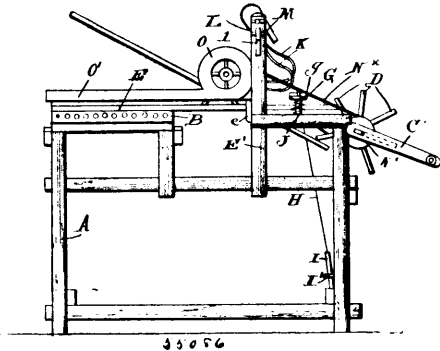


In a device for controlling water wheel gates, employing a governor operating two circuits, two terminals, two opposing terminals, and mechanism for automatically moving said opposing terminals away from the primary terminals and returning the same to their normal position, which mechanism is brought into operation by the closing of either of said circuits, substantially as specified. 4th. In combination with an electric governor operating two circuit terminals, two electric circuits adapted to be opened and closed thereby, mechanism operated by said circuits controlling a shipping lever for bringing into operation alternate trains of driving gears driven by a main shaft, mechanism for automatically returning the governor terminals to their normal position, operated through said gate shaft, substantially as specified. 5th. In combination with a governor positively driven, two electric circuits, terminals for said circuits operated alternately by mechanism controlled by the variations of the governor's speed, two secondary terminals supported upon a carrier, two sets of driving mechanism one of which is in continuous operation, and the other mechanism is intermittently brought into operation by the closing of either circuit, and mechanism operated thereby for returning said secondary terminals to their normal position, substantially as specified. 6th. In a power transmitting device, a positively driven governor journaled upon a shaft which is automatically raised and lowered by the contraction or expansion of the governor balls, electric terminals connected to and controlled by said vertically moving shaft, whereby either of said electric circuits is automatically closed by the variable speed of the governor, substantially as specified. 7th. In combination with a positively driven governor journaled upon a vertically moving shaft, the movement of which is controlled by the variable governor speed, electric circuit terminals connected to and operated by said shaft, adjusting mechanism connected to one end of said shaft and operated automatically by a power gear and lever mechanism to adjust said primary terminals independent of the governor ball adjustment, whereby said terminals are automatically brought into their normal position, substantially as specified. 8th. In a device for operating water wheel gates, the combination with a positively driven governor, of mechanism connected to and operated by the shaft thereof and controlling two alternately operating circuit terminals, two magnets alternately energized by making and breaking of said circuits, controlled by said terminals, an armature controlled by each magnet connected to and operating shipping mechanism, of two independent trains of gears which drive the gate shaft C in opposite directions by means of the variable governor speed and its mechanism controlling said magnet circuit, substantially as specified. 9th. The combination of a positively driven governor journaled upon a vertically moving shaft which is raised or lowered by the variable governor speed, circuit terminals mounted upon a lever operated by said governor shaft, an independent terminal connected to said lever and adapted to engage at its extreme movement in one direction with the terminal of a branch circuit 42, substantially as specified. 10th. In combination with a positively driven governor journaled upon a vertically moving shaft, a primary electric circuit terminal connected to and operated by said shaft, a secondary opposing terminal supported upon a carrier, power mechanism connected to and operated by the mechanism set in motion by the circuit established by the primary terminal, whereby said terminals are moved to and from contact, substantially as specified. 11th. The combination of a positively driven governor journaled upon a vertically moving shaft which is raised or lowered by the variable governor speed, circuit terminals mounted upon a lever operated by said governor shaft, an independent terminal connected to said lever and adapted to engage at its extreme movement in one direction with the terminal of a branch circuit 44, whereby the circuit is maintained and the train of gears for closing the gate is kept in motion, substantially as specified. 12th. In a machine for controlling the movement of water wheel gates, employing a governor which controls an electric circuit, of a lever shipping

mechanism operated by said circuit, and adjustable stops for limiting the movement of the shipping lever, substantially as specified. 13th. In a machine for controlling the movement of water wheel gates, employing a governor which controls an electric circuit, of a lever shipping mechanism operated by said circuit and a travelling graduated guide moving between said stops and connected with the shipping lever, whereby the movements of the electrically controlled shipping lever is determined by the adjustment of said stops, substantially as specified.

No. 55,086. Carpet Beating Machine.

(Appareil pour battre les tapis.)



Justus Henry Ibel and Morley Hodgson, both of Boston, and William Milton Dean, Taunton, all in Massachusetts, U.S.A., 24th February, 1897; 6 years. (Filed 11th July, 1896.)

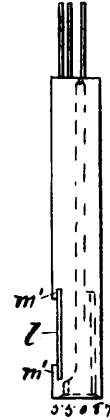
Claim.—1st. The combination with the frame, the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, substantially as described. 2nd. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and a cross-bar arranged over the rear ends of said beaters, substantially as described. 3rd. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and springs bearing on said beaters, with means for regulating the tension thereof, substantially as described. 4th. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and a cross-bar arranged over the rear ends of said beaters, a pivoted lever and connection between the same and said cross-bar, substantially as described. 5th. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and a cross-bar arranged over the rear ends of said beaters, a pivoted lever and connection between the same and said cross-bar, and springs connected with said beaters in front of their pivots and their other ends connected in line with the pivot with a movable cross-bar, substantially as described. 6th. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and a cross-bar arranged over the rear ends of said beaters, a pivoted lever and connection between the same and said cross-bar, and springs connected with said beaters in front of their pivots and their other ends connected in line with the pivot with a movable cross-bar, and cam levers acting on said cross-bar to regulate the tension of the springs, substantially as described. 7th. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and a blower operated from said shaft, substantially as described. 8th. The combination with the frame and the rotatable shaft having pins, of the pivoted beaters having their rear ends extended into the path of said pins, and springs bearing on said beaters, with means for regulating the tension thereof, and a blower operatively connected with said shaft, substantially as described.

No. 55,087. Spring Jack for Telephone Switchboards. (Levier à ressort pour commutateurs de téléphone.)

The Bell Telephone Co. of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 24th February, 1897; 6 years. (Filed 20th October, 1896.)

Claim.—1st. In a spring-jack, the combination with the plate *c* having the tubular channel *i*, the transverse saw-cut *i*², and the oblique duct *i*³ leading from the tubular channel to the saw-cut, of the thimble *d* inserted in the tubular channel, the extension *d*² thereof passing through the oblique duct into the saw-cut and twisted at its rear extremity to prevent its withdrawal from the saw-cut, substantially as described. 2nd. The combination with the plate *c* having the transverse saw-cut *i*² therein, of the thimble *d*, the extension *d*² thereof lying in the saw-cut *i*² and twisted at its rear extremity to prevent its withdrawal from the saw-cut, as described. 3rd. The combination with the plate *c*, of the thimble *d* inserted in an opening thereof, the extension *d*² of the thimble lying

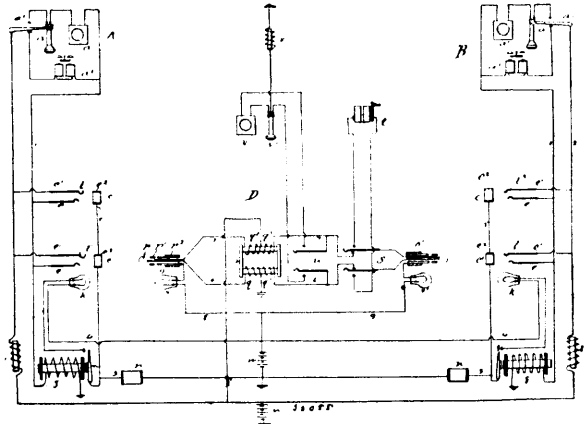
in the saw-cut *i*², the countersunk opening *i*³, the tongue *d*² being twisted to produce a shoulder bearing upon the bottom of the open-



ing *i*³, substantially as described. 4th. The combination with the plate *c* having a number of thimbles *d* mounted therein, of the groove *m* in the face thereof having its edges undercut at *m*¹ and a plate *z* lying in said groove and having its edges engaging said undercut portions *m*¹, substantially as described.

No. 55,088. Multiple Switchboard Spring Jack.

(Levier à ressort pour commutateurs de téléphone multiple.)

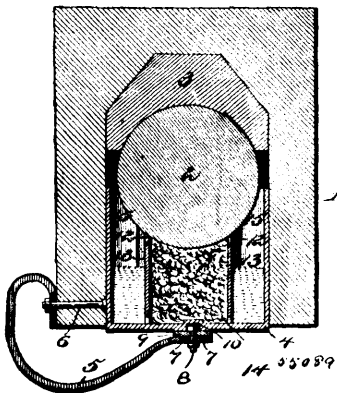


The Bell Telephone Co. of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 24th February, 1897; 6 years. (Filed 20th October, 1896.)

Claim.—1st. In a multiple switchboard, spring-jacks connected in multiple with the line, a test-contact in each jack, all the test-contacts being electrically connected together, means for making connection with the line and simultaneously altering the electrical condition of the test-contacts thereof, a testing-plug adapted to be applied to the test-contacts, and a telephone in circuit therewith adapted to indicate the said altered electrical condition, a connecting-plug and a visible signal in circuit with the plug adapted to indicate said altered condition, as described. 2nd. The combination with a telephone line of several spring-jacks on different sections of a multiple switchboard connected with the line, a testing in each spring-jack, means for changing the electrical condition of the test-rings when connection is made with the line, a test-contact adapted to be applied to the test-ring of a spring-jack, and a signalling instrument in circuit therewith to indicate the electrical condition of the test-ring, a connecting-plug for insertion into the spring-jack and a local circuit completed through registering contacts of the connecting-plug and spring-jack, a visible signal in the local circuit, and means for diverting current from the visible signal when the line is in use, substantially as described. 3rd. The combination with a telephone line connected with several spring-jacks in multiple, of test-contacts in the different spring-jacks electrically connected together, means for connecting a source of current with the test-contacts while the line is in use, a testing-plug adapted to be applied to a test-contact having in circuit with it a receiving telephone, a connecting-plug adapted for insertion into the spring-jack, a contact piece therein registering with the test-contact of the spring-jack, and a branch terminating in the said plug contact from the circuit of the test-battery, including a visible signal, whereby a click-test and visible test are provided, substantially as described. 4th. The combination with a telephone line connected with different spring-jacks in multiple, of a test-contact in each spring-jack, the different test-contacts being con-

nected together and being grounded, of a relay in the line-circuit responding to current therein controlling the connection of a battery with the test-contacts, connecting-plugs having branches from the same battery terminating in contacts adapted to register with the test-contacts of the spring-jacks, and a test-plug having a tip adapted for application to a test-contact, connected to earth through a receiving-telephone, and having a contact piece adapted to register with the test-contacts connected with the battery-circuit and including a lamp-signal, substantially as described. 5th. The combination with the telephone line connected with several spring-jacks in multiple, of test-contacts in the different spring-jacks connected together and grounded through a resistance coil, different connecting plugs, each having a tip connected through a receiving telephone to earth, and a sleeve constructed to register with the test-contact of a spring-jack connected through a lamp-signal top, one pole of a grounded battery, whereby an existing connection with a spring-jack is indicated audibly when the tip of a plug is applied to a test-contact, and visibly when the plug is inserted into the spring-jack, substantially as described. 6th. The combination with a telephone line connected with several spring-jacks in multiple, of test-rings in the different spring-jacks electrically connected together and to earth through a resistance coil, a relay in the line-circuit responding to current therein, and a battery whose connection with the test-contacts is controlled by the contacts thereof, connecting plugs for insertion into the spring-jacks, each having a tip forming the terminal of a ground branch including a receiving telephone, a sleeve adapted to register with the test-contact, and a branch from the same battery including a signal-lamp terminating in each such sleeve, whereby both an audible and a visible test-signal are provided to indicate either the existence of current in the line-circuit or the presence of a plug in a spring-jack. 7th. The combination with a telephone line connected with several spring-jacks in multiple, each having a test-contact, of connecting-plugs, a supervisory signal associated with each connecting-plug, and means for causing the display of the signal during the idleness of the telephone of the line with which the plug is connected, and means for diverting the exciting current from the supervisory signal when connection is made with different spring-jacks of the line, a testing tip in the plug and a test-circuit terminating therein, including the operator's receiving telephone adapted to indicate the busy or idle condition of the line, whereby the operator is enabled to test a line by applying the plug-tip to a test-contact, or by inserting the plug into the spring-jack and observing the supervisory signal, substantially as described.

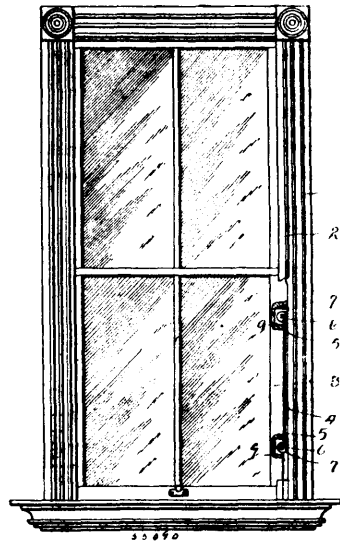
No. 55,089. Journal Box for Engine Trucks.
(*Coussinet de tourillon pour châssis de locomotives.*)



Orange Pound, Bartow, Florida, U.S.A., 24th February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a device of the class described, the combination of a journal box, a journal bearing or brass interposed between the journal and the top of the journal box, an oil cellar arranged within the journal box, fitting against the bottom of the journal and provided at its bottom with recesses 10, a tie bar extending longitudinally of the oil cellar at the bottom thereof, a pair of curved springs provided at their inner and outer ends with perforations and consisting of stems extending beneath the journal box and the oil cellar, and loops arranged at one side of the journal box, fastening devices securing the outer ends of the loops to the journal box, and bolts passing through the inner ends of the springs and the tie bar and having heads interlocked with the recesses of the oil cellar, whereby the latter is held against longitudinal movement, substantially as described. 2nd. In a device of the class described, the combination of a journal box, an oil cellar supported within the bottom thereof, a pair of removable longitudinal partitions arranged in suitable ways of the oil cellar and dividing the space within the oil cellar into a central waste compartment and side compartments, said partitions being provided at their lower edges with recesses to establish communication between the compartments, and having their upper edges arranged adjacent to the journal, and provided with teeth-forming combs, substantially as described.

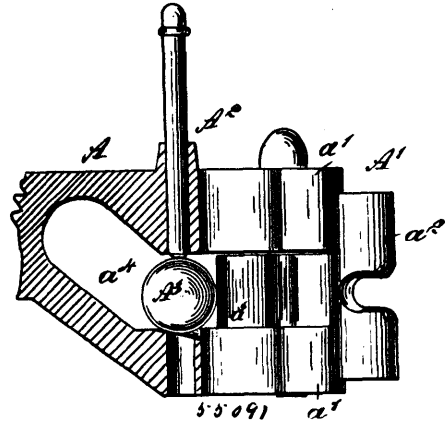
No. 55,090. Car Window. (*Fenêtre de chars.*)



Jacob T. Grubb, Reading, Pennsylvania, U.S.A., 24th February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. The combination with a window sash, of a spring attached thereto and bearing a roller upon each end thereof. 2nd. The combination with a window sash provided with pockets, of a spring carrying a roller upon each end thereof, said roller being adapted to be received within said pockets. 2rd. The combination with a window sash, of a spring provided with forked rebent ends, an axle carried by said rebent portions, and a roller rotatably mounted on said axle. 4th. The combination with a window sash provided with pockets, of a spring mounted upon each side thereof having forked rebent ends, axles provided with slots within which said rebent ends are adapted to retire, and rollers carried by said axles.

No. 55,091. Car-Coupler. (*Attelage de chars.*)



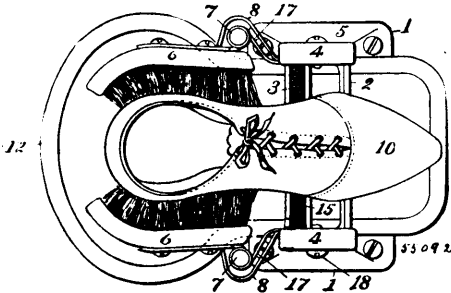
Daniel Collen, Inwood, Ontario, Canada, 24th February, 1897; 6 years; (Filed 1st February, 1897.)

Claim.—In a car-coupler, the combination with a head, of a swinging knuckle, a gravity locking device for said knuckle, a spherical body in a chamber formed in a coupler-head and adapted to automatically move beneath the locking device after the same shall have been raised, and also by impinging against the inside of a portion of the swinging knuckle, to move the said knuckle to an open position, substantially as described. 2nd. In a car-coupler, the combination of a draw-head having a recess and an aperture in its top to receive a coupling pin, a knuckle mounted to swing on said draw-head with one end adapted to enter said recess, a ball in said recess having means for holding it normally in position to be engaged and moved by contact with said knuckle when the same enters said recess, and a coupling-pin arranged to pass through the aperture in the top of the draw-head, and adapted to lock said knuckle against movement, said pin having its lower end arranged to be engaged and held up out of operative position by said ball when the same is in its normal position, substantially as set forth. 3rd. In a car-coupler, the combination of a draw-head, having a recess and an aperture in its top to receive a coupling-pin, the bottom of said recess being inclined downward toward the front open end of the draw-head, a knuckle mounted to swing on said draw head with one end adapted to enter said recess, a ball in said recess adapted to

stand normally at the front lower end of the inclined bottom thereof, in position to be engaged and moved up said inclined bottom by contact with said knuckle when the same enters said recess, and a coupling-pin arranged to pass through the aperture in the top of the draw-head and to lock the knuckle against movement, said pin having its lower end arranged to be engaged and held up out of operative position by said ball when the same is in its normal position, substantially as set forth.

No. 55,092. Device for Cleaning Boots and Shoes.

(Appareil pour nettoyer les chaussures.)

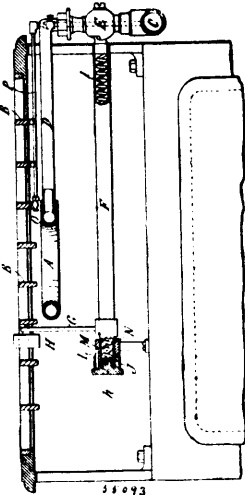


Robert J. Trumbull, San Raphael, California, U.S.A., 24th February, 1897; 6 years. (Filed 1st February, 1897.)

Claim.—1st. In a boot and shoe cleaning device, the combination of a rigid and an elastic scraper, fixed in juxtaposition, a frame to support the scrapers and a removable catch pan beneath, operating in the manner and for the purposes substantially as described. 2nd. In a boot and shoe cleaning device, a scraper or scrapers, to clean the soles of a boot or shoe, and in combination therewith the hinged brushes (6), pressed inward by springs so as to follow the contour of the sole or sides of the boot or shoe, in the manner substantially as described. 3rd. In a boot and shoe cleaning device, the rigid and elastic scrapers (2) and (3), the hinged and movable brushes (6), and in combination therewith the removable pan (12), held, when in place by lugs at the sides, that disengage when the pan is raised, in the manner substantially as described. 4th. In a boot and shoe cleaning device, the rigid and elastic scrapers (2) and (3), the curved and hinged brushes (6) and the removable pan (12), the whole contained and operating in the manner and for the purposes substantially as set forth and described.

No. 55,093. Gas Governor for Cooking Stoves.

(Gouverneur à gaz pour poêles de cuisine.)



John Wynn, Cardiff, Glamorgan, South Wales, 24th February, 1897; 6 years. (Filed 2nd February, 1897.)

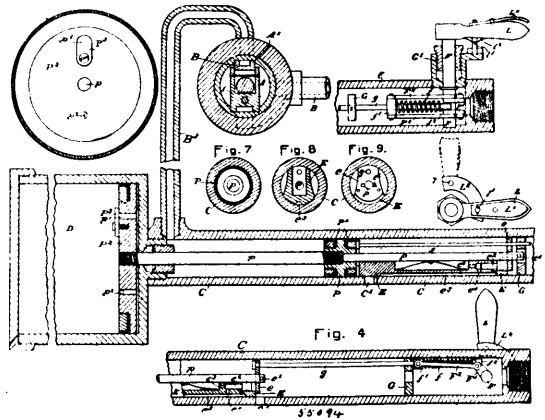
Claim.—1st. In a gas cooking stove, a spring-controlled arm F, connected with the plug E, of the gas supply tap, and adapted to be moved by the act of placing or shifting the vessel on the stove above the burner, substantially as and for the purposes specified. 2nd. An attachment to gas cooking stoves, comprising a tube F, having an internal spring I, cap J, and arm G, provided with a collar H, operating to automatically control the gas supply, as set forth.

No. 55,094. Automatic Air-Brake Retainer.

(Frein atmosphérique.)

Christian Wilhelm Yuul, Anaconda, Montana, U.S.A., 24th February, 1897; 6 years. (Filed February 2nd, 1897.)

Claim.—1st. An air-brake retainer operated by the exhaust from the triple valve to secure a delayed final discharge of the same, sub-



stantially as shown and described. 2nd. An air-brake retainer operated by the exhaust from the triple valve to secure a delayed release of the said exhaust, and by the application of the brakes to reset the same in operative position, substantially as shown and described. 3rd. The combination with the ordinary mechanism of an automatic air-brake, of a valve covering the exhaust port, means for moving it to uncover said port by the exhaust-pressure, and means for graduating the rapidity of said movement, so as to slightly delay the final exhaust release, substantially as shown and described. 4th. The combination with the ordinary mechanism of an automatic air-brake, of a valve covering the exhaust-port, means for moving said valve to uncover the port by the exhaust pressure, and a dash-pot connected to the valve so as to slightly delay the final exhaust release, substantially as shown and described. 5th. The combination with the ordinary mechanism of an automatic air-brake, of a slide-valve covering the exhaust-port, means for moving it to uncover said port by means of the exhaust pressure, and a device connected to the valve for securing a gradual movement thereto so as to slightly delay the final exhaust release and mechanism actuated by the application of the brakes to return this valve to its place covering the exhaust-port, substantially as shown and described. 6th. The combination with the ordinary mechanism of an automatic air-brake, of a slide-valve covering the exhaust port, means for moving it to uncover said port by means of the exhaust-pressure and a device connected to the valve for securing a gradual movement thereto so as to slightly delay the final exhaust release and mechanism actuated by the air-pressure from the auxiliary reservoir to return this valve to its place covering the exhaust-port, substantially as shown and described. 7th. The combination with the ordinary mechanism of an automatic air-brake, of a slide-valve covering the exhaust-port, means for moving it to uncover said port by means of the exhaust-pressure and a device connected to the valve for securing a gradual movement thereto so as to slightly delay the final exhaust release, and mechanism consisting of a cylinder and piston and connections therefrom to the auxiliary reservoir to operate this valve by air and return it to its position covering the exhaust-port whenever the brakes are applied, substantially as shown and described. 8th. The combination with the ordinary mechanism of an automatic air-brake, of a chamber through which the exhaust from the brake-cylinder passes and having an exhaust-port therein, a valve within said chamber moved by the exhaust from the triple valve to uncover said port and a device connected to said valve to cause a gradual movement thereof, so as to cause a delayed but free final exhaust, substantially as shown and described. 9th. The combination with the ordinary mechanism, of an automatic air-brake, of a chamber having an exhaust-port therein which is closed during applications, through which chamber and port the exhaust from the triple valve must pass, and means actuated by the ordinary releasing mechanism to cause a slightly delayed but free final opening of the said exhaust-port, substantially as shown and described. 10th. The combination with the ordinary mechanism of an automatic air-brake of means, other than the triple valve, whereby the exhaust-port is closed during applications and means actuated by the movement of the ordinary releasing mechanism for causing a slightly delayed but free final opening of said exhaust-port, substantially as shown and described. 11th. The combination with the ordinary mechanism of an automatic air-brake, of a chamber connected at one end to the exhaust from the brake cylinder and having an exhaust-port therein, a valve within said chamber moved by the exhaust from the brake cylinder to uncover the said exhaust-port, means connected with the valve for securing a gradual movement thereto, and means operated by applying the brakes to return the said valve to a position covering the exhaust-port, substantially as shown and described. 12th. The combination with the ordinary mechanism of an automatic air-brake, of a cylinder connected at one end to the exhaust from the brake-cylinder and having an exhaust-port therein, a valve closing said port, a piston in

said cylinder actuated by the exhaust from the brake-cylinder and by its movement opening said valve, and a device connected to said piston to secure a gradual movement thereto and a delayed opening of the valve, substantially as shown and described. 13th. The combination with the ordinary mechanism of an automatic air-brake, of a cylinder connected at one end to the exhaust from the brake-cylinder and having an exhaust-port therein, a valve closing said port, a piston in said cylinder actuated by the exhaust from the brake-cylinder and by its movement opening said valve, and a dash-pot connected to said piston to secure a gradual movement thereto, substantially as shown and described. 14th. The combination with the ordinary mechanism of an automatic air-brake, of a cylinder connected at one end to the exhaust from the brake-cylinder and having an exhaust-port therein, a valve closing said port, a piston in said cylinder actuated by the exhaust from the brake-cylinder and by its movement opening said valve, a dash-pot connected to said piston to secure a gradual movement thereto, connections from the opposite end of the cylinder to the operating or triple valve whereby the working pressure of air is admitted behind the piston to return it and its connected valve to a position to cover the exhaust-port when the brakes are applied, substantially as shown and described. 15th. The combination with the ordinary mechanism of an automatic air-brake, of a chamber through which the brake-cylinder exhaust must pass, and having an exhaust-port therein, a valve therein which permits a free passage through the exhaust-port when the brake is not in use, means actuated by the application of the brakes for moving the valve to cover the exhaust-port, and means actuated by setting the triple valve in a release position for uncovering the exhaust-port and means connected to this valve whereby its speed of motion is regulated so that the final release is slightly delayed, substantially as shown and described. 16th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein and connections from one end of the retainer-cylinder to the triple valve exhaust-port, two supplementary ports in the triple valve cylinder, one connected with the outside air and the other with the other end of the retainer-cylinder, a supplementary valve operated by the triple valve to control these ports, a slide-valve in the retainer-cylinder, a piston therein connected to the slide-valve to operate it and means connected to this piston to cause a slow movement of the piston and connected valve by the air-brake exhaust, thus delaying the final exhaust, substantially as shown and described. 17th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein, connections from one end of the retainer-cylinder to the triple-valve exhaust-port, mechanism operated by the triple valve whereby connection is made from the brake-cylinder supply to the opposite end of the retainer-cylinder when the brakes are applied, and from the same end of the retainer-cylinder to the outside air when the triple valve is set at release, a valve closing the exhaust-port in the retainer-cylinder, a piston in this cylinder for operating said valve, and a dash-pot connected to this piston to cause a slow movement of the piston against the exhaust air, substantially as shown and described. 18th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein, connections from one end of the retainer-cylinder to the triple-valve exhaust-port, mechanism operated by the triple valve whereby connection is made from the brake-cylinder supply to the opposite end of the retainer-cylinder when the brakes are applied and from the same end of the retainer-cylinder to the outside air when the triple valve is set at release, a valve closing the exhaust-port in the retainer-cylinder, a piston in this cylinder for operating said valve, a retarding-cylinder or dash-pot and a piston therein connected to the retainer-piston, said dash-pot piston having a small by-pass when moved by the exhaust air but a large by-pass when moved in the opposite direction, substantially as shown and described. 19th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein, connections from one end of this cylinder to the exhaust-port of the triple valve, two supplementary ports in the triple valve cylinder, connections from one of these to the other end of the retainer-cylinder and from the other port to the outer air, a supplemental valve operated by the triple valve to uncover the first supplemental port when the brakes are applied and to connect the two ports when the triple valve is set at release, a valve in the retainer-cylinder controlling its exhaust-port, a piston therein operating the valve and operated in opposite directions by the exhaust-pressure and the application pressure, and means for making the motion under exhaust-pressure much slower than in the opposite direction, substantially as shown and described. 20th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein, connections from one end of this cylinder to the exhaust-port of the triple valve, two supplementary ports in the triple valve cylinder, connections from one of these to the other end of the retainer-cylinder and from the other port to the outer air, a supplemental valve operated by the triple valve to uncover the first supplemental port when the brakes are applied and to connect the two ports when the triple valve is set at release, a valve in the retainer-cylinder controlling its exhaust-port, a piston therein operating the valve and operated in opposite directions by the exhaust-pressure and the application-pressure, a retarding-cylinder or dash-pot and a piston therein connected to the retainer-piston,

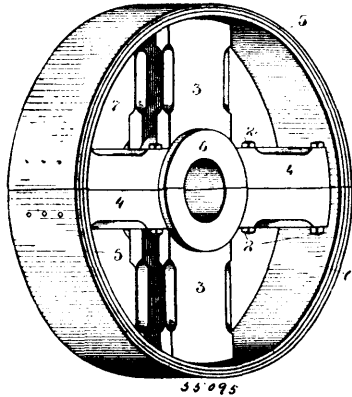
said dash-pot having a small by-pass when moved by the exhaust-pressure but a large by-pass when moved in the opposite direction, substantially as shown and described. 21st. In an air-brake retainer, the combination of a cylinder having an exhaust-port therein through which the brake-cylinder exhaust must pass, a valve in said cylinder controlling the port and means for operating this valve to cover or uncover said port, of a relief port and valve in the said retainer-valve and operated by the same mechanism to connect the exhaust-port and exhaust end of the retainer-cylinder during the travel of the piston toward that end and to close this connection as soon as motion is commenced in the opposite direction, substantially as shown and described. 22nd. The combination with the ordinary mechanism of an automatic air-brake, two additional ports in the triple valve cylinder and a valve within the same and operated by the triple valve to control these extra ports, of a retainer device for delaying the brake-cylinder exhaust after the action of the triple valve and connections therefrom to the exhaust-port and to one of the extra ports whereby it is alternately and oppositely operated by the exhaust air and the brake-cylinder air, substantially as shown and described. 23rd. The combination with the ordinary mechanism of an automatic air-brake, two supplemental ports in the triple-valve cylinder, a slide-valve in the said cylinder and operated by the triple valve to uncover one port when in the application position and to connect the two ports when in the release position, of an exhaust-delaying device connected with the triple-valve exhaust and the first or supply port of the supplemental ports so as to be alternately and oppositely operated thereby, substantially as shown and described. 24th. The combination with the ordinary mechanism of an automatic air-brake, of an exhaust-delaying device alternately and oppositely operated by the exhaust air and the brake-cylinder air, connections therefrom to the exhaust-port of the triple valve, and to a supplemental supply-port in the triple valve cylinder, said supplemental supply-port and a co-operating exhaust-port in the triple-valve cylinder, a valve within said cylinder and operated by the triple-valve to uncover the supplemental supply-port when the triple-valve is set at the application position and to connect the two ports when the triple-valve is set at the release position, substantially as shown and described. 25th. In an air-brake retainer, the combination of a cylinder having an exhaust-port therein through which the exhaust must pass, a slide-valve for controlling said port and having an exhaust-port in its face, a piston connected to and operating said valve and a relief-port and valve in the slide-valve connecting said exhaust-valve port and exhaust end of the retainer-cylinder and operated by the piston to open the relief-port when moving toward the exhaust end of the retainer-cylinder, and to close it when moving in the opposite direction, substantially as shown and described. 26th. In an air-brake pressure-retainer, the combination with a cylinder having an exhaust-port therein through which exhaust must pass, a slide-valve therein for controlling this port and a piston operated by air-pressure and operating the said slide-valve, of a relief-port and valve adapted to be opened by and during the movement of the piston while closing the exhaust-port and to be closed thereby while moving in the opposite direction, substantially as shown and described. 27th. In an air-brake pressure-retainer, the combination with a cylinder having an exhaust-port therein through which exhaust must pass, a piston therein operated alternately and in opposite directions by air-pressure mechanism operated by the triple-valve to change the air-pressure to opposite sides of this piston, of a slide-valve within the retainer-cylinder connected to and moved by the piston to control the exhaust-port and a relief-valve and port in the said slide-valve controlled by the piston and held open thereby during motion of the valve to cover the exhaust-port, substantially as shown and described. 28th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein through which the exhaust must pass, connections from one end thereof to the triple-valve exhaust-port, a slide-valve in said cylinder for regulating the opening of the exhaust-port, a piston connected thereto and operated to move the valve to uncover the port by the exhaust from the triple-valve, a dash-pot connected to the piston to secure a gradual motion thereof, and a spring resisting the motion of the piston just before uncovering said port, substantially as shown and described. 29th. The combination with the ordinary mechanism of an automatic air-brake, of a retainer-cylinder having an exhaust-port therein through which the exhaust must pass, connections from one end thereof to the triple-valve exhaust-port, a slide-valve in said cylinder for regulating the opening of the exhaust-port, a piston connected thereto and operated to move the valve to uncover the port by the exhaust from the triple-valve, a dash-pot connected to the piston to secure a gradual motion thereof, and a spring resisting the motion of the piston just before uncovering said port, and means whereby it may be thrown out of action when desired, substantially as shown and described.

No. 55,095. Wood Pulley. (*Poulie en bois.*)

Franz Ludwig Barthelmes, Toronto, Ontario, Canada, 24th February, 1897; 6 years. (Filed 2nd February, 1897.)

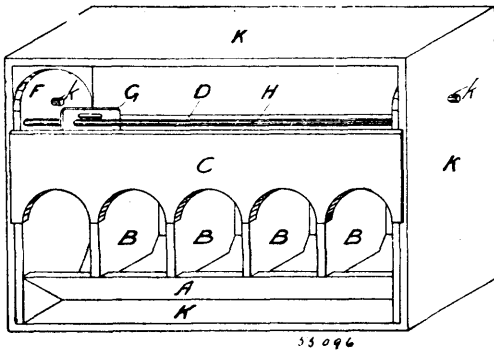
Claim.—1st. A wood pulley divided diametrically, each section of the rim formed of several semi-circular bands of shaved veneer glued one upon the other, substantially as shown and described. 2nd. In a wood pulley divided diametrically, a wood bushing formed of one piece by cutting on the inner side at equal intervals longi-

tudinal V-shaped grooves, whereby the said bushing is enabled to encircle the shaft, and having cemented to the outer side a flexible



support, substantially as shown and described. 3rd. In a wood pulley divided diametrically, a wood bushing formed of one piece by cutting longitudinal V-shaped grooves, whereby the said bushing is enabled to encircle the shaft, and having cemented to the outer side a flexible support, in combination with a metal key or wedge to enter the shaft, substantially as shown and described. 4th. In a wood pulley divided diametrically, a wood bushing of one or more pieces formed of a number of segmental sections of wood cemented on a flexible support, whereby the bushing is enabled to encircle the shaft, substantially as shown and described.

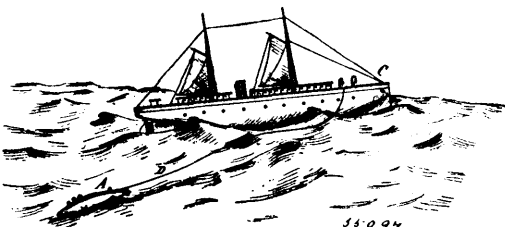
No. 55,096. Feeding Trough. (Auge.)



George Timothy Laird and James Knight Gold, both of Mount Pleasant, Ontario, Canada, 25th February, 1897; 6 years. (Filed 26th January, 1897.)

Claim.—1st. A feeding trough having vertically formed compartments for feeding, substantially as described and for the purposes hereinbefore set forth. 2nd. The combination of the sloping top piece E for distributing food, the hand scraper G and the vertically divided trough, substantially and for the purposes hereinbefore set forth. 3rd. The combination of vertically formed partition, sloping top and scraper, and other parts as shown in figures 1, 2 and 3, and adapted to any ordinary trough, substantially and for the purposes as set forth. 4th. The combination of a trough with feeding arrangement as described and the framework K, K, K, K, for supporting same, substantially and for the purposes as hereinbefore described.

No. 55,097. Life-saving Apparatus. (Appareil de sauvetage.)

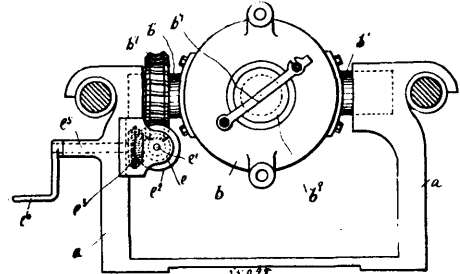


Hans Kauer, of New York, Gustav Paul Fromm and Charles Boehring both of Brooklyn, all of New York, U.S.A., 28th February, 1897; 6 years. (Filed 7th January, 1897.)

Claim.—1st. A life-saving apparatus composed of a floating body, pointed paddle wheels, a screw propeller, a rudder, a reel, and a motor for steering and propelling the body, substantially as speci-

fied. 2nd. A life-saving apparatus composed of a floating body, pointed paddle wheels, a screw propeller, a guard around the same, a rudder having a horizontal blade, a reel, a tube, pivoted claws, and a roller, substantially as specified. 3rd. A life-saving apparatus composed of a floating body, paddle wheels, a screw propeller, a rudder, a motor and a cable, the wires of which connect a switch-board on board the vessel to the steering and propelling mechanism, substantially as specified.

No. 55,098. Apparatus for Treating Heated Metal. (Appareil pour traiter le métal en fusion.)

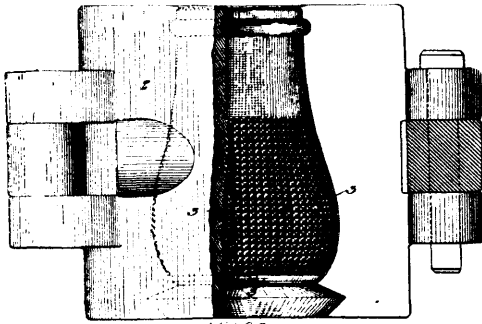


George Alexander Dick, 110 Cannon Street, London, England, 25th February, 1897; 6 years. (Filed 29th December, 1896.)

Claim.—1st. In apparatus for treating heated metals under pressure, a pressure chamber or container consisting of a tube or lining of a suitable metal open at both ends and surrounded by one or more concentric tubes or casings of metal open at both ends and separated by a wall of heat-insulating or non-conducting material and provided with means for preventing the escape of such material, substantially as herein shown and described and for the purpose stated. 2nd. In apparatus for treating heated metals under pressure, a pressure chamber or container consisting of a tube or lining of suitable metal open at both ends and surrounded by one or more concentric tubes or casings of metal open at both ends and separated by a wall of heat-insulating or non-conducting material and provided with stop rings at each end for preventing the escape of such material, substantially as herein shown and described and for the purpose stated. 3rd. In apparatus for treating heated metals under pressure, a pressure chamber or container consisting of a tube or lining of suitable metal open at both ends and surrounded by one or more concentric tubes or casings of metal open at both ends and separated by a wall of heat-insulating or non-conducting material, the parts being formed to interlock, so that they will not become separated by the pressure exercised upon the heated metal within the lining, substantially as herein shown and described and for the purpose stated. 4th. In apparatus for treating heated metals under pressure, a pressure chamber or container consisting of a tube or lining of suitable metal open at both ends and surrounded by one or more concentric tubes or casings of metal open at both ends and separated by a wall of heat-insulating or non-conducting material, such parts being formed exteriorly of the lining in the shape of a cone or double cone or of other interlocking shape, so that they will not become separated but be tightened by the pressure exercised upon the heated metal within the lining, substantially as herein shown and described and for the purpose stated. 5th. In apparatus for treating heated metals under pressure, a pressure chamber or container consisting of an exteriorly tapered tube or lining of suitable metal open at both ends and closely embraced by a correspondingly interiorly tapered casing open at both ends, the lining and the tapered casing being surrounded by one or more similar tubes or casings separated by a wall of heat-insulating or non-conducting material, the parts being formed to interlock in one direction, so that by reversing the direction of the pressure the lining may be forced out of the tapered casing without disturbing the insulating or non-conducting material, substantially as herein shown and described. 6th. In apparatus for treating heated metals, under pressure, a pressure chamber or container consisting of a tube or lining of suitable metal open at both ends and surrounded by one or more concentric tubes or casings of metal open at both ends and separated by a wall of heat-insulating or non-conducting material and provided with means for preventing the escape of such material and a cap or stopper held in position by a latch or bar for temporarily closing one end of the lining during the filling with heated metal, substantially as herein shown and described and for the purpose stated. 7th. In apparatus for treating heated metals under pressure, the combination with a pressure chamber of a ram or plunger of smaller diameter than the interior of the lining of the pressure chamber, a loose bolt adapted to approximately fit the lining of the pressure chamber in advance of the ram or plunger and provided with a recess or projection corresponding in shape with the head of the plunger, substantially as herein shown and described and for the purpose stated. 8th. In an apparatus for treating heated metals under pressure, the combination of a pressure chamber or container open at both ends, a ram or plunger, a removable die holder and a die detachably mounted in the holder, substantially as herein shown and described and for the purpose stated.

No. 55,099. Manufacture of Glass Articles.

(Fabrication d'objets en verre.)

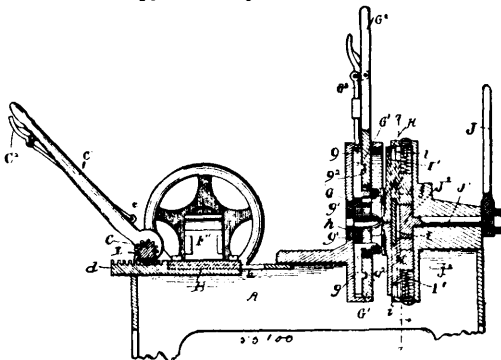


George Washington Blair, Pittsburg, Pennsylvania, U.S.A., 25th February, 1897; 6 years. (Filed 9th January, 1897.)

Claim.—1st. As a new article of manufacture, a lamp chimney or globe through which light passes when in use, said chimney having upon its inner face contiguous series of inwardly extending adjacent projections, substantially as described. 2nd. As a new article of manufacture, a lamp chimney or globe, having upon its inner face contiguous series of adjacent projections, and upon its outer face corresponding series of recesses, substantially as described. 3rd. As a new article of manufacture, a lamp chimney or globe formed of blown glass and having formed in its outer face contiguous series of angular recesses, and corresponding registering series of inwardly extending angular projections upon its inner face.

No. 55,100. Drill Sharpener.

(Appareil à aiguiser les forets.)

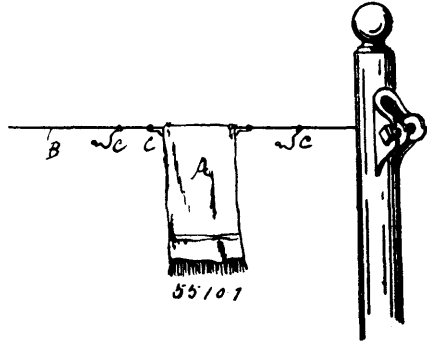


Ole Larson, Wardner, Idaho, U.S.A., 25th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. In a drill sharpener, the combination of holding devices, the bits and means by which to force such bits in a direction from centre outward, the bits being adapted to sharpen the tool on their outward movement, substantially as set forth. 2nd. In a drill sharpener, the combination with the holding devices of the bit support, the bits movable in said support toward and from a common centre and adapted to sharpen the tool on their outward movement, and means by which to actuate such bits forcibly outward, substantially as set forth. 3rd. In an apparatus substantially as described, the combination of the bit support, the bits movable therein toward and from a common centre, and adapted to sharpen the tool on their outward movement, spring devices for actuating such bits inward, and means by which to forcibly move the bits outward, substantially as set forth. 4th. In an apparatus substantially as described, the combination of the framing, the drill holder movable along the same, the drill guide provided with an opening for the passage of the drill and also with holding pieces movable toward and from said opening and the sharpening bits, substantially as set forth. 5th. In apparatus, substantially as described, the combination of the framing, the drill holder movable along the same, a lever and detent by which said drill holder may be set to and held in any suitable position, the drill guide having an opening for the passage of the drill and holding pieces movable toward and from such opening, the sharpening bits movable toward and from a common centre and means by which to forcibly move such bits outward, substantially as and for the purposes set forth. 6th. In an apparatus substantially as described, a sharpener comprising a plurality of bits meeting at a central point and movable outward therefrom and adapted to sharpen the tool on their outward movement, substantially as set forth. 7th. In an apparatus substantially as described, the combination of the bits movable outward from an inner or central position, devices by which to press the drill bit endwise against the bits, and means by which to move the bits forcibly outward, substantially as set forth. 8th. In an apparatus substantially as described, the combination with the

outwardly movable bits and their support, of the armed wheel engaging such bits and the handle lever connected with such armed wheel, substantially as set forth. 9th. In an apparatus substantially as described, the combination with the guide of the face plate having an opening formed with cam walls and provided in its inner face with cam grooves and the holding pieces arranged for engagement by the cam walls of the face plate opening and having pins or projections entering the grooves thereof, substantially as and for the purposes set forth. 10th. In an apparatus substantially as described, the combination with a suitable support of the bits movable outward from an inner or central position, such bits having sharpening portion near their inner ends and recesses or pockets adjacent to and on the outer sides of said sharpening portions, and means by which to move said bits outward, substantially as and for the purposes set forth.

No. 55,101. Clothes Pin. (Epingle à linge.)

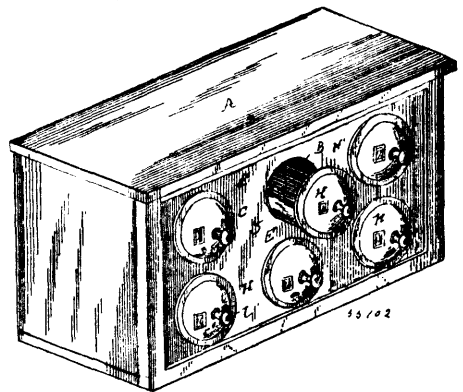


Joseph N. Brown, Muskegon, Michigan, U.S.A., 25th February 1897; 6 years. (Filed 11th January, 1897.)

Claim.—1st. The herein-described clothes pin, consisting of a main stem, formed with an eye or eyes at one end and bent into an S or double U-shape at its other end, substantially as and for the purpose described. 2nd. The herein-described reversible clothes-pin, made of a single piece of wire or other material, and comprising a main portion, which is provided at one end with suitable eye, and at the other end with an S or double U-shape at right angles to the plane of the eye, substantially as and for the purpose described. 3rd. The herein-described reversible clothes-pin, made of a single piece of wire or other material, and comprising the main portion or stem which is formed at one end with suitable eye, which is located in the same plane with the main stem, and the S or double U-shape formed on the other end of the clothes-pin, said S-shaped end lying in a plane at right angles to the stem and eye, substantially as and for the purpose described. 4th. The herein-described reversible clothes-pin, made of a single piece of wire, and comprising the main portion or stem *a*, having the eye *b* at one end and the S or double U-shape at the other end, formed in a plane at right angles to the main stem and eyes, substantially as described. 5th. The herein-described reversible clothes-pin, made of a single piece of wire, and comprising the main stem *a*, the eyes *b* and *c* at one end and the S-shaped portion at the other end formed in a plane at right angles to the eyes and having the curve or protecting bend *f*, substantially as and for the purpose described.

No. 55,102. Device for Holding Screws, Nails, etc.

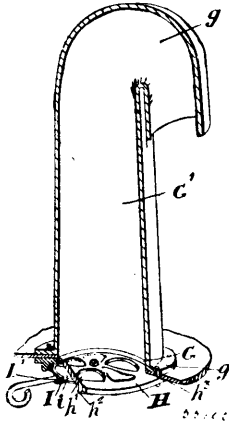
(Boite à vis, clous, etc.)



John H. Knapp, Pearl, Illinois, U.S.A., 25th February, 1897; 6 years. (Filed 11th January, 1897.)

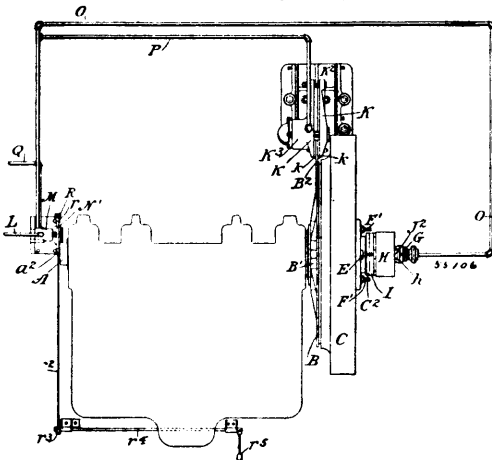
Claim.—As an improved article of manufacture, a screw case having a plurality of sliding semi-circular receptacles designed to hold screws and the like of various sizes, and plates within the openings in which the receptacles slide and having flanges at their upper edges by which the receptacles are guided, as set forth.

stovepipe is situated, a cast-iron pipe provided with a lower flange and a bent downwardly projecting upper end or elbow, a plate pro-



vided with sectorial openings and bolts extending through the bottom of the stove and bottom flange of the pipe, circular damper pivoted on the plate with sectorial openings, and provided with handle for manipulation, as and for the purpose specified.

No. 55,106. Mechanism for Forging Small Articles.
(Machine à forger.)



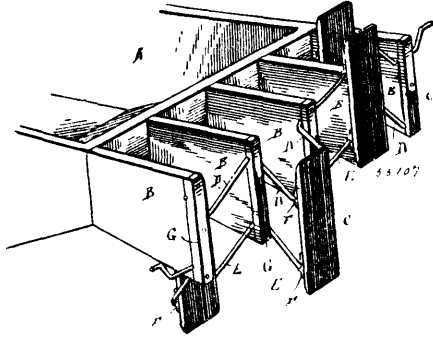
Charles De Los Rice, Hartford, Connecticut, U.S.A., 25th February, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—1st. In a forging machine, the combination of a sliding die-holder, a rocking-frame supported upon an axis in line with said die-holder and having an eccentric bearing point, a link intermediate said die-holder and rocking frame and constituting with said rocking frame a toggle lever, a hand-lever connected to said rocking frame to shift the same, and a cam in line with said die-holder and the axis of said rocking-frame, and adapted to act upon the bearing point of said rocking frame and to effect a further movement thereof after the action of a hand lever, substantially as shown and described. 2nd. In a forging machine, the combination of a sliding die-holder, a rocking frame supported upon an axis in line with said die-holder, a link intermediate said die holder and rocking frame, a cam in line with said die-holder and the axis of said rocking frame and adapted to act upon said rocking frame, and a bearing point on said rocking frame for said cam out of the line of the axis of the rocking frame and cam, substantially as shown and described. 3rd. In a forging machine, the combination of a sliding die holder, a rocking frame supported upon an axis in line with said die-holder, and having an eccentric bearing point, a link intermediate said die holder and rocking frame, and constituting with said rocking frame a toggle lever, a shaft in line with said die holder and the axis of said rocking frame, a cam on said shaft adapted to bear upon said eccentric bearing point of said rocking frame out of line with the axes of said frame and shaft to thrust said die holder forward, and a toe cam on said shaft adapted to strike upon a projection from said rocking frame, and to withdraw said die holder, substantially as shown and described. 4th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, retaining fingers standing normally in front of the stationary die holder and adapted to hold an article temporarily in position between themselves and the stationary die, a movable carrier for said retaining fingers and a device actuated by the operating means of the movable die holder to shift said carrier and withdraw said

fingers as the movable die holder moves forward, substantially as shown and described. 5th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, retaining fingers adapted to hold an article temporarily in position, a carrier for said retaining fingers, a hinged support to which said carrier is secured, and a rod adapted to be actuated by the operating means of the movable die holder to swing said hinged support and withdraw the retaining fingers, substantially as shown and described. 6th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, a stripper standing normally in front of the stationary die holder and adapted to engage the forging and to eject it from the stationary die, a reciprocating part, a hooked rod to engage said reciprocating part, and intermediate means whereby said stripper is actuated by the movement of said hooked rod, substantially as shown and described. 7th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, a rock shaft, a stripper secured to said rock shaft and standing normally in front of the stationary die holder, and adapted to engage the forging to eject it from the stationary die, an arm secured to said rock shaft, a reciprocating part, a hooked rod to engage said reciprocating part, and connections from said hooked rod to said rock shaft, substantially as shown and described. 8th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, a stripper finger mounted to oscillate in front of the stationary die holder and adapted to engage the forging and to eject it from the stationary die, a reciprocating part and a hooked rod connected to the stripper finger to oscillate the same and adapted to engage a projection on said reciprocating part, substantially as shown and described. 9th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, a stripper adapted to engage the forging and to eject it from the stationary die, a reciprocating part and a hooked rod connected to the stripper to actuate the same and adapted to engage a projection on said reciprocating part, and having also an incline to co-operate with a fixed pin whereby in the continued movement of the reciprocating part the hooked rod is disengaged therefrom, substantially as shown and described. 10th. In a forging machine, the combination of a stationary die holder, a movable die holder, means for actuating said movable die holder, a stripper adapted to engage the forging and eject it from the stationary die, a reciprocating part, an adjustable bar mounted on said reciprocating part and having a lip, and a hooked rod connected to the stripper to actuate the same and adapted to engage the lip on said reciprocating part, substantially as shown and described. 11th. In a clutch mechanism, the combination with a driven part and a driver movable into or out of working contact, a brake for said driven part, an hydraulic piston and cylinder for operating said brake, an hydraulic piston and cylinder to press said driver and driven part into working contact, a single valve and independent connections to said cylinders, and means to actuate said valve whereby pressure may be applied to one or the other of said pistons, substantially as shown and described. 12th. In a clutch mechanism, the combination with a driven part and a driver movable into or out of working contact, a brake for said driven part, an hydraulic piston and cylinder for operating said brake, an hydraulic piston and cylinder to press said driver and driven part into working contact, a single valve and independent connections to said cylinders, a lever for shifting said valve to admit pressure to one or the other of said cylinders, and means actuated by said driven part to shift said lever, substantially as shown and described. 13th. The combination with a shaft of an hydraulic piston and cylinder to control the movement of said shaft, a valve and connections to control the application of pressure to said piston, a lever connected to said valve to shift the same, and an eccentric projection carried by said shaft and adapted to shift said lever as the shaft is rotated, substantially as shown and described. 14th. The combination with a valve having a shifting lever connected thereto, of a longitudinally reciprocating rod free to swing and having a projection to engage said lever, and means to swing said rod into or out of proximity to said lever, substantially as shown and described. 15th. The combination with a valve having a shifting lever connected thereto, of a longitudinally reciprocating rod free to swing and having a projection to engage said lever, a slide to which said rod is connected, a spring connected to said slide to swing said rod away from said lever, and means to swing said rod toward said lever, substantially as shown and described. 16th. The combination with a valve having a shifting lever connected thereto, of a longitudinally reciprocating rod free to swing and having a projection to engage said lever, a treadle and connections to swing said rod toward said lever, and a spring interposed in said connections whereby said rod is permitted to yield, substantially as shown and described. 17th. The combination with a wheel mounted to rotate and a relatively short plate secured thereto parallel with the plane of rotation, of brake jaws arranged on opposite sides of the path of said plate, and means to force said jaws together to clamp said plate between them, substantially as shown and described. 18th. The combination with a wheel mounted to rotate and a plate secured thereto parallel with the plane of rotation, of brake jaws arranged on opposite sides of the path of said plate, an hydraulic cylinder carried by one of said jaws, and a piston and connection to the other of said

jaws whereby said jaws may be forced together to clamp said plate between them, substantially as shown and described. 19th. The combination with a wheel mounted to rotate and a plate secured thereto parallel with the plane of rotation, of a standard fixed in proximity to said wheel, a brake jaw rigidly supported by said standard, a movable brake jaw supported by said standard, said brake jaws being adapted to clamp said plate between them, a cylinder carried with said rigid brake jaw, and a piston for said cylinder connected to said movable jaw, substantially as shown and described.

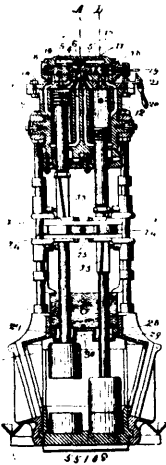
No. 55,107. Propeller for Boats.
(*Propulseur pour vaisseaux.*)



William M. Spann, Doniphan, Missouri, U.S.A., 25th February, 1897; 6 years. (Filed 11th January, 1897.)

Claim.—The combination with the boat and the vertically disposed supports at the rear thereof, of the removable plates on the rear ends of said supports, said supports and plates having oppositely disposed recesses to form bearings for the crank-shafts, the crank-shafts mounted in said bearings in the same vertical plane but in different horizontal planes, the stirrups mounted on the paddles for vertical adjustment, and the paddles secured to the crank-shafts, and having bearings in the stirrups, each paddle being connected with the cranks of both shafts, and having their ends bevelled and adapted to enter and leave the water substantially vertically, substantially as herein shown and described.

No. 55,108. Steam Ore-Stamp. (*Etampe à vapeur.*)

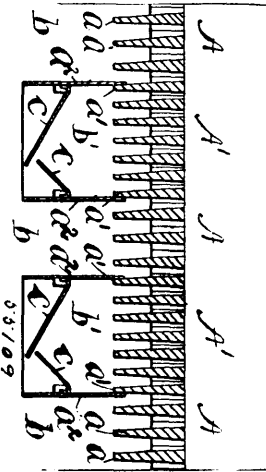


Charles W. Tremain, Portland, Oregon, U.S.A., 25th February, 1897; 6 years. (Filed 2nd February, 1897.)

Claim.—1st. The combination in a steam-stamp, with the cylinders and the pistons therein, and a single valve controlling the ports admitting steam into said cylinders, of one independent set of ports and ducts for conducting into the valve-chamber to move said valve, a portion of the live steam admitted into the cylinder below the piston to lift the stamp, and another independent set of ports and ducts for conducting another portion of said live steam from the under to the upper side of the piston in said cylinder to cushion the piston-head, and prevent the same from striking against the cylinder-head, and also to start the piston back, substantially as set forth. 2nd. In a stamp, the combination with the spiral stems of the smooth-faced wheels or collars having a central opening corresponding to the spiral of the stamp-stems, which operate therein as described, and anti-friction facing or sleeve in the eye of such wheels for the spiral stems to operate in, and means adapted to allow such wheels to move in one direction, but bind and hold the same if moved in the opposite direction, substantially as set forth and for the purposes described. 3rd. In a stamp, the combination

with the spiral stems of the smooth-faced wheels or collars having a central opening, corresponding to the spiral of the stamp-stems, which operate therein as described, and anti-friction facing or sleeve in the eye of such wheels for the spiral stems to operate in, and a spring-clutch secured at its centre and having two arms or members each faced at its end with some friction material and adapted to allow said wheels to move in one direction, but bind and hold the same if moved in the opposite direction, substantially as set forth and for the purposes described. 4th. In a steam-stamp, in combination, two cylinders and pistons therein, a valve-chest on said cylinders, and a single piston-valve in such chest, having ports 8, 11, and provided with a double-D or slide-valve controlling the ports admitting steam into said cylinders respectively, independent stems and exhaust-chambers within said valve-chest, pipe 2 and passage 3 leading into such steam-chamber, ducts and passages as 5, 7, 9, 10, and 12, 13, 14, 15, 16, 17 furnishing communications between such cylinders and valve-chest and providing ingress and egress for the steam operating the pistons within said cylinders, and ports 8 and 18 for permitting the steam that has moved the valve to exhaust, all substantially as set forth. 5th. The combination in a steam-stamp with the cylinders and pistons therein, a valve-chest upon said cylinders and passages or ports furnishing communication between said cylinders and valve-chest and providing ingress and egress for the steam operating the pistons and valve, of a piston-valve, and a slide-valve, the latter controlling the ports admitting steam into the cylinders, substantially as set forth.

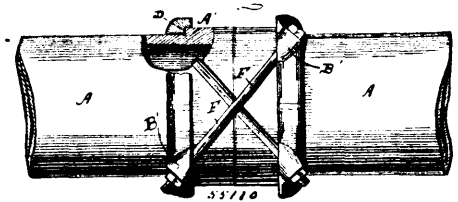
No. 55,109. Grate. (*Grille.*)



Hugh McGovern, Providence, Rhode Island, U.S.A., 25th February, 1897; 6 years. (Filed 3rd February, 1897.)

Claim.—1st. A flat grate, divided into sections by means of compartments below the grate, the sides of the compartments extending downward from the underside of the grate, and serving to increase the draft of air through the alternate sections of the grate, and means for restricting the flow of air through the intermediate sections, substantially as described. 2nd. A flat grate, in which the grate-bars in alternate sections are arranged at a greater distance apart than are those in the intermediate sections, and having below the grate, compartments the sides of which extend downwardly and serve to increase the draft of air through the sections of the grate the bars of which are farthest apart, and over which the quick combustion is maintained.

No. 55,110. Pipe Clamp. (*Lien de tuyaux.*)

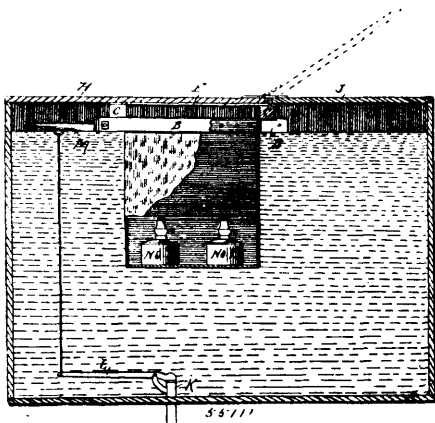


Frederick Anderson, Lantz, Pennsylvania, U.S.A., 26th February, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. In a detachable coupling for pipes, the combination with the two-part rings having dovetailed connections, the said sections annularly recessed, projections B' on said sections, of the tightening bolts F diagonally disposed in inclined apertures between the said ring sections, and flattened shoulders on which the heads of the bolts and the nuts thereon are adapted to rest, substantially as shown and described.

No. 55,111. Anti-freezing Stock Waterer.

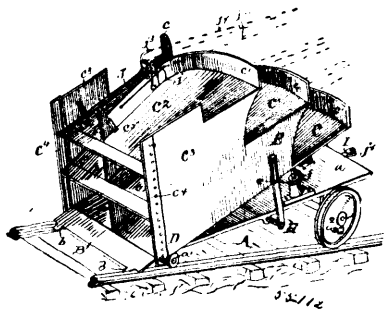
(Auge à l'épreuve de la gelée.)



John Arthur Drake, Brooklyn, Iowa, U.S.A., 26th February, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. A water-tight heating chamber adapted to float in a trough or tank, comprising a frame composed of two parallel wooden bars or side pieces and two cross-pieces fixed on their tops and end portions and a sheet metal chamber fixed to the inside faces of said four bars and a cover on top of the cross-pieces as shown and described for the purposes stated. 2nd. A water-tight heating chamber, adapted to float in a trough or tank, comprising a frame composed of parallel wooden bars or side pieces and two cross-pieces fixed on their tops and end portion and a sheet metal chamber fixed to the inside faces of said four bars and a cover on top of the cross-pieces as shown and described, in combination with a trough or tank, having an opening to admit a water-heater and to give access to animals, for distributing heat over the surface of the water in the tank and under the fixed top of the tank in the manner set forth, for the purposes stated.

No. 55,112. Snow Plough. (Charruc à neige.)

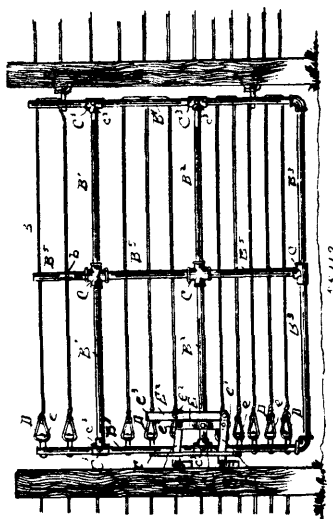


Adam Even, Port Washington, Wisconsin, U.S.A., 26th February, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. In a snow-plough for railways, the combination of a truck provided at its front end with a scraper rigidly immovably secured thereto and projecting forwardly and downwardly toward its front edge close to the track, a number of pairs of chutes arranged one pair above another, and hinged or pivoted to the front part of the truck, and an adjustable connection between said truck and chutes at a distance to the rear from their hinge or pivot connection, substantially as and for the purpose set forth. 2nd. In a snow-plough for railways, the combination with a suitable truck, of a number of pairs of chutes mounted upon said truck and arranged one pair above another, partitions between the chutes having openings therein gates hinged or pivoted in said openings so as to be turned to either side and discharge the snow from both chutes of each pair at the opposite side of the plough, and means for simultaneously turning said gates from the centre to either side, and *vice versa*, substantially as and for the purpose set forth. 3rd. In a snow-plough for railways, the combination of a truck and a number of chutes arranged in pairs one above another and mounted upon said truck, vertically-disposed turning posts arranged centrally between said chutes, gates pivoted at their rear ends to said posts and provided with upwardly-projecting arms, a main turning post provided with a lever fulcrumed thereto and with a cross rod connected on opposite sides of the post by cables with cross rods or arms of the turning posts to which said gates are pivoted, and cables connecting the upwardly-projecting arms of said gates with said lever, substantially as and for the purpose set forth. 4th. In a snow-plough for railways, the combination of a suitable truck, chutes hinged or

pivoted at or near the bottom and front end to said truck, one or more screws pivoted to the bottom of said chutes at a distance to the rear from their hinge or pivot connection with the truck, worm-gears carried by the truck and threaded on said screws, worms meshing with said gears, and a crank for turning said worms, substantially as and for the purposes set forth. 5th. In a snow-plough for railways, the combination of a truck, chutes hinged or pivoted at or near the bottom and front end of the plough to said truck, and a thrust-bar pivoted at its front end to the bottom of the chutes and provided at its rear end with a coupling for the attachment of a locomotive, substantially as and for the purposes set forth. 6th. In a snow-plough for railways, the combination of a truck having a forwardly and downwardly inclined platform or frame which is provided at its front end with a scraper rigidly secured thereto, a number of chutes arranged in pairs one pair above another, and hinged or pivoted at or near the bottom and front end to said truck, an adjustable supporting connection between said chutes and truck for changing the inclination of the chutes, and a thrust-bar pivoted at its front end to the bottom of the chutes near the front end of the plough, and provided with a projection adapted to engage with and propel the truck independently of the chutes, said bar having at its rear end provision for the attachment thereto of a locomotive, substantially as and for the purposes set forth.

No. 55,113. Gate Latch. (Loquet de barrière.)



William J. Hays, Decatur, Illinois, U.S.A., 26th February, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. In a gate, the combination with the upper and lower horizontal latches pivoted near their inner ends, of a lever pivoted at its lower end to the inner extremity of the lower latch, and provided with a pin to engage the inner end of the upper latch, the upper end of the lever having a lateral extension to engage a portion of the gate and lock the two latches, substantially as set forth. 2nd. The combination with the gate having a vertical bar and a keeper at its free edge, of latches pivoted near their inner ends to the ends of the said bar and projecting through the keeper beyond the front end of the gate to engage the strikes, and a lever pivoted at its lower end to the inner end of the lower lever and having a transverse pin to overhang the inner end of the upper latch, the upper end of the lever being bent toward the gate to engage a cross-wire or part and lock the two latches, substantially as set forth.

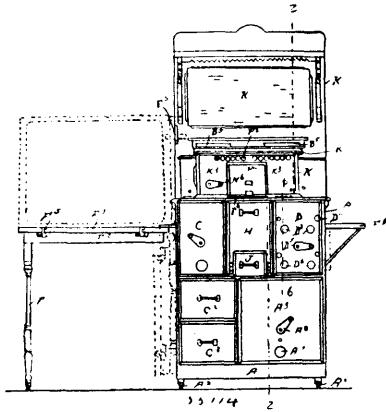
No. 55,114. Kitchen Cabinet.

(Cabinet de cuisine.)

Harrison Linton, Gunnison, Colorado, U.S.A., 26th February, 1897, 6 years. (Filed 4th February, 1897.)

Claim.—1st. The combination with a drawer for containing flour or the like, of a worm in the bottom of the drawer, means for operating the worm, a float on its inner end to rest on the contents of the drawer, a rod pivoted to the outer end of the float-bearing rod and extending vertically and an indicator on the upper end of the upright rod, substantially as and for the purposes stated. 2nd. In combination with a kitchen cabinet, a device having a number of boxes mounted in a rotatable frame and having means for bringing any one of said boxes to the front, comprising the following elements in combination, to wit: a rotatable platform mounted on a vertical shaft N², a number of boxes N³, mounted thereon, a belt-wheel N⁴ on said shaft, a gear device N⁵ operated by a crank N⁶, a belt N⁷ for operating the said belt-wheel N⁴ from the device N⁵ a tension device N⁸ a top N⁹ on said shaft N² lugs N¹⁰ fixed to said top, a door P¹¹ hinged to the front of said compartment, a catch P¹⁰ on said door, a flat metal bar P⁷ hinged to the top of said compart-

ment, a bolt P⁸ connected thereto to engage the said hook and a number of lugs R adapted to be brought into engagement with the



said bar P⁷ when engaged by the lugs N¹⁰ to release the said door, a lever T pivotally mounted on the side of the compartment K³ a projection T² secured to the door P¹¹ a slotted plate T³ on the lever T² a spring T⁴ a rod T⁵ having a hook on its end pivoted to one side of the compartment, and the pins T⁶ in the edge of the top piece N⁹, all arranged and combined substantially as and for the purposes stated. 3rd. In a kitchen cabinet, a drawer containing two or more compartments and means for drawing out substances from either of said compartments, by the operation of a single crank, comprising the following elements, to wit: an inclined bottom in each department, a worm D² therein, a gear D⁷ loosely mounted on each worm shaft, a shaft D⁴ having a crank D⁵ in its forward end and a gear wheel D⁶ on its rear end in mesh with the gears D⁷ a clutch device D⁸ fixed to each of the gears D⁷ a rod D⁹ running through each compartment and having a clutch device D¹⁰ connected with its end and slidingly and non-rotatably connected with the shaft of the worm D² to engage the clutch D⁸, arranged and combined substantially in the manner set forth, for the purposes stated. 4th. In a kitchen cabinet, the following elements in combination, to wit: a compartment H, having a platform H² therein mounted upon the rollers H⁴ a pair of scales H³ on said platform, a door H⁵ hinged to the front of said compartment to swing downwardly and outwardly, a cross piece H⁶ fixed thereto, a coil-spring H⁷ attached to the approximate top portion of the said door and to the said platform, adapted to operate substantially in the manner set forth, for the purposes stated. 5th. In a kitchen cabinet, the combination of the following elements, to wit: a compartment having a platform H³ therein mounted on the rollers H⁴, a pair of scales H³ on said platform, a door H⁵ hinged to the foot of said compartment to swing downwardly and outwardly, a cross-piece H⁶ fixed thereto, a coil-spring H⁷ attached to the approximate top portion of the said door and to the said platform, in combination with a drawer J, having a lug J⁴ fixed to its top, a flat flexible metal bar J² above the said drawer provided with a lug J³ adapted to engage the lug J⁴, a spring to normally exert a yielding pressure upwardly upon the part J², and a lug J⁵ projecting downwardly from the platform H³ to normally engage the part J², all arranged and combined substantially in the manner set forth, for the purposes stated. 6th. In combination with a kitchen cabinet, a device having a number of boxes mounted in a rotatable frame and having means for bringing any one of said boxes to the front, comprising the following elements in combination, to wit: a rotatable platform N, mounted on a vertical shaft N², a number of boxes N³ mounted thereon, a belt-wheel N⁴ on said shaft, a gear device N⁵ operated by a crank N⁶, a belt N⁷ for operating the said belt-wheel N⁴ from the device N⁵, a tension device N⁸, a top N⁹ on said shaft N², lugs 10 fixed to said top, a door P¹¹ hinged to the front of the said compartment, a hook P¹⁰ on said door, a flat metal bar P⁷ hinged to the top of said compartment, a bolt P⁹ connected thereto to engage the said hook and a number of lugs R, adapted to be brought into engagement with the said bar P⁷, when engaged by the lugs N¹⁰, to release the said door, means for bringing any one of said lugs into engagement with the bar P⁷, and mechanism for engaging the rotatable box-holding frame when said door is opened, all arranged and combined substantially in the manner set forth, and for the purposes stated.

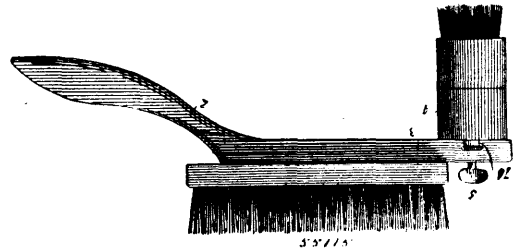
No. 55,115. Liquid Blacking Brush.

(Brosse à cirage.)

Lemuel Malachi Whisenant, Perdge Hill, Alabama, U.S.A., 26th February, 1897; 6 years. (Filed 4th February, 1897.)

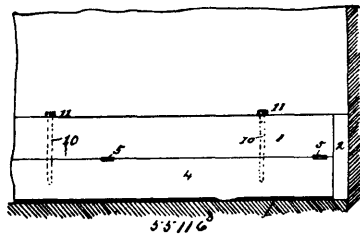
Claim.—The combination with a blacking brush of ordinary construction, of a dauber therefor, made up of a casing adapted to contain liquid blacking having a brush upon its lower end and an opening therethrough, a tube extending upwardly from said opening

provided at points near its lower end with perforations, a cap for said tube normally covering the perforations therein, a screw nor-



mally bearing against the upper end of said cap and means whereby said screw may be turned, substantially as and for the purpose described.

No. 55,116. Carpet Fastener. (Attache de tapis.)

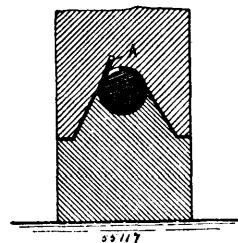
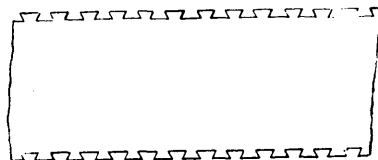


John J. Moore, Dillon, Montana, U.S.A., 26th February, 1897; 6 years. (Filed 4th February, 1897.)

Claim.—1st. A carpet fastener comprising two sections hinged together and provided with corresponding sockets, metal sleeves arranged in the sockets, the lower section being provided with spurs to engage and hold the carpet, and pins adapted to enter the sockets in the respective sections, whereby the same are held locked together, substantially as set forth. 2nd. A carpet fastener comprising two sections hinged together one above the other, the upper section being adapted to be secured to the wall of a room, and the lower section being provided with devices to engage and hold the carpet, said sections being provided with sockets extending through them in vertical planes, and pins adapted to pass through the sockets in the upper section and having their lower ends arranged to engage the sockets in the lower section, substantially as set forth.

No. 55,117. Tube Shaping Tool.

(Outil pour donner la forme aux tubes.)



Société Anonyme des Tubes Chobert, 28 Rue Jourdan, assignee of Alfred Chobert, 23 Rue des long-Chariots, both in Brussels, Belgium, 26th February, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—An improved tool or device for completely closing metal tubes, formed out of a flat blank having dovetailed edges, which consists of a pair of jaws, one of which is fitted with a slightly oblique slit A adapted to receive one of the edges of the tube blank, while the other edge is being bent by pressure on the jaws, substantially as hereinbefore set forth.

*CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO
THE FOLLOWING PATENTS.*

4623. THOMAS A. LEE, 2nd term of No. 47,915, from the 24th February, 1897 being a re-issue of No. 38,346. Fireproof Floor, February 1st, 1897.
4624. EDWARD SELDEN TOWNSEND KENNEDY, 3rd term of No. 25,917, from the 4th February, 1897. Flame Deflector for Upright Boilers, February 1st, 1897.
4625. DAVID URBANE GRAVELINE, 2nd term of No. 38,222, from the 5th February, 1897. Car Coupling, February 4th, 1897.
4626. MILO COVEL, 2nd term of No. 38,237, from the 6th February, 1897. Saw Dressing Machine, February 5th, 1897.
4627. MILO COVEL, 2nd term of No. 38,319, from the 20th February, 1897. Saw Sharpening Machine, February 10th, 1897.
4628. JOHN HELWIG, 2nd term of No. 38,259, from the 10th February, 1897. Bolt and Rivet Cutter, February 10th, 1897.
4629. THE INTERNATIONAL POSTAL SUPPLY CO. (assignee), 3rd term of No. 26,061, from the 25th February, 1897. Mail Marking Apparatus, February 8th, 1897.
4630. JOSEPH A. MUMFORD AND A. ROBB AND SONS (assignee), 3rd term of No. 25,962, from the 10th February, 1897. Steam Boiler, February 9th, 1897.
4631. GEORGE S. MAYHEW (assignee), 2nd term of No. 38,270, from the 12th February, 1897. Cover, February 9th, 1897.
4632. ELMORE'S AMERICAN AND CANADIAN PATENT COPPER DEPOSITING COMPANY (assignee), 2nd term of No. 38,323, from the 22nd February, 1897. Apparatus for Manufacturing Tubes by Electrolysis, February 10th, 1897.
4633. GOTLIEB DAUNLER, 3rd term of No. 26,196, from the 10th March, 1897. Motor Engine, February 10th, 1897.
4634. THOMAS BARIL, 2nd term of No. 38,278, from the 13th February, 1897. Method of Connecting Railway Cars, February 10th, 1897.
4635. WILLIAM MILES FOWLER, 2nd term of No. 38,527, from 18th March, 1897. Recording Liquid Measure, February 11th, 1897.
4636. TAYLOR SCOTT BUCK, 2nd term of No. 38,692, from the 9th April, 1897. Rubber Stamp, February 11th, 1897.
4637. GEORGE ANDREWS, 2nd term of No. 41,345, from the 21st December, 1897. Apparatus for Trapping Birds and Animals, December 21st, 1897.
4638. HARRIET A. HART, 2nd term of No. 38,726, from the 12th April, 1897. Oil Can, February 16th, 1897.
4639. REUBEN C. ELDRIDGE (assignee), 2nd term of No. 38,339, from the 24th February, 1897. Check Hook, February 18th, 1897.
4640. WILLIAM HENRY HART, 2nd term of No. 39,095, from the 9th June, 1897. Garment Hook, February 19th, 1897.
4641. ALBERT RODGERS TIFFANY AND WESLEY YOUNG, 2nd term of No. 38,320, from the 22nd February, 1897. Tag Wiring and Bundling Machine, February 18th, 1897.
4642. HARRIET RUTH TRACY, 2nd term of No. 38,570, from the 24th March, 1897. Elevator, February 20th, 1897.
4643. WILLIAM HENRY ELMER, 2nd term of No. 38,341, from the 24th February, 1897. Turbine, February 22nd, 1897.
4644. THE FIRM OF WYCKOFF, SEAMANS AND BENEDICT (assignee), 3rd term of No. 26,102, from the 28th February, 1897. Cabinet for Typewriters, February 23rd, 1897.
4645. W. R. CAVELL, 2nd term of No. 38,351, from the 25th February, 1897. Duplicate Memorandum Book, February 23rd, 1897.
4646. FREDERICK ELLJAH BLAISDELL, 2nd term of No. 38,338, from the 24th February, 1897. Pencil, February 24th, 1897.
4647. GEORGE THOMAS BELL, 2nd term of No. 38,801, from the 25th April, 1897. Process of and Apparatus for Manufacturing Cyanides, February 24th, 1897.
4648. JOHN HANCHETT, 2nd term of No. 38,357, from the 25th February, 1897. Saw Swage, February 24th, 1897.
4649. EUGEN SCHAAL, 3rd term of No. 26,069, from the 26th February, 1897. Method of Manufacturing Artificial Copals, February 25th, 1897.

TRADE - MARKS

Registered during the month of February, 1897, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

5878. THE DIASTASE FLOUR COMPANY, Needham Market, Suffolk, England.
Flour, 3rd February, 1897.
5879. }
5880. }
5881. } THE TORONTO RADIATOR MANUFACTURING COMPANY, LIM-
5882. } TED, Toronto, Ont. Radiators, 4th February, 1897.
5883. }
5884. }
5885. THOMAS ALEXANDER LYTLE AND SAMUEL CRANE, Toronto,
Ont., trading as T. A. LYTLE AND COMPANY. Vinegar,
Catsup, Pickles, Relishes, Sauces, Jams, Jellies and the like, 5th
February, 1897.
5886. FREDERIC SILVESTER MASON, New York, N.Y., U.S.A. Medicine
for Gouty and Rheumatic Cases, 5th February, 1897.
5887. CHARLES H. PETERS, JR., St. John, N.B. Tea, 8th February, 1897.
5888. } W. D. AND H. O. WILLS, LIMITED, Bristol and London, England.
5889. } Tobacco, Cigars and Cigarettes, 9th February, 1897.
5890. THE BOSTON RUBBER SHOE COMPANY, Boston and Malden, Massa-
chusetts, U.S.A. Rubber Boots and Shoes, 9th February, 1897.
5891. ROBERT TASKER STEELE, Hamilton, Ont. Tea, 11th February, 1897.
5892. } THE JOHN GRIFFITHS CYCLE CORPORATION, LIMITED, Dublin,
5893. } Ireland, and Toronto, Canada. Bicycles, Tricycles and the
5894. } several parts thereof, 11th February, 1897.
5895. DAVID MARSHALL AND DELPHINE NAIRN, Aylmer, Ont., trading
as THE AYLMER CANNING COMPANY. Canned Goods,
such as fruits, vegetables, poultry, meats and evaporated fruits,
13th February, 1897.
5896. HIRAM WALKER AND SONS, LIMITED, Walkerville, Ont. Distilled
Liquors, 13th February, 1897.
5897. }
5898. }
5899. } THE TORONTO RADIATOR MANUFACTURING COMPANY, LIM-
5900. } TED, Toronto, Ont. Radiators, 13th February, 1897.
5901. }
5902. W. A. ROSS AND SONS, LIMITED, Belfast, Ireland. Mineral and Aerated
Waters, natural and artificial, including Ginger Beer, 13th
February, 1897.
5903. CONDY AND MITCHELL, LIMITED, London, England. A Disinfectant,
13th February, 1897.
5904. ROBERT TASKER STEELE, Hamilton, Ont. Teas, Coffees, Spices, Baking
Powders, Extracts, etc., 19th February, 1897.
5905. EGBERT WARREN GILLETT, Chicago, Illinois, U.S.A., and doing
business in Toronto, Ont., as E. W. GILLETT. Baking Powder,
19th February, 1897.
5906. THE TORONTO RADIATOR MANUFACTURING COMPANY, LIM-
TED, Toronto, Ont. Radiators, 20th February, 1897.
5907. PERRY MASON AND COMPANY, Boston, Mass., U.S.A. Publications,
22nd February, 1897.
5908. JOHN McFARLANE AND THOMAS D. McFARLANE, Ottawa, Ont.,
trading as McFARLANE BROTHERS. Bicycles, accessories
and parts thereof, 23rd February, 1897.

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5909. E. OROSDI, 60 et 62 rue d'Hauteville, Paris, France. Une Poudre de Riz, 23 février 1897.
5910. FERDINAND VAN BRUYSEL, Montreal, Que. Bread in loaves, 24th February, 1897.
5911. WILLIAM F. SCHMOELE AND COMPANY, 42 rue Nationale, Antwerp, Belgium. Cement, 25th February, 1897.
5912. DR. HESS AND COMPANY, Ashland, Ohio, U.S.A. Poultry Food, Powder and Medicine, 25th February, 1897.
5913. PAUL DESJARDINS, Sainte-Cunégonde, Qué. Vin antidyspeptique de raisin sauvage, 27 février 1897.

COPYRIGHTS

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Copyright and Trade-Mark Branch.

8984. I DON'T LOVE NOBODY. Words and Music by Lew. Sully. Whaley, Royce & Co., Toronto, Ont., 1st February, 1897.
8985. MANUAL OF EVIDENCE IN CIVIL CASES. By R. E. Kingsford, M.A., L.L.B. (Second Edition.) The Goodwin Law Book and Publishing Co. (Ltd.), Toronto, Ont., 2nd February, 1897.
8986. TOPICAL STUDIES IN CANADIAN HISTORY. By Nellie Spence, B.A. Chas. J. Mussen, Toronto, Ont., 2nd February, 1897.
8987. MÉTHODE DE LECTURE. (Syllabaire.) Par Les Frères du Sacré-Cœur, Arthabaskaville, Qué., 3 février 1897.
8988. THE CANADIAN LAW TIMES. Volume XIII. Edited by E. Douglas Armour, Q.C. The Carswell Co. (Ltd.), Toronto, Ont., 4th February, 1897.
8989. THE CANADIAN LAW TIMES. Volume XIV. Edited By E. Douglas Armour, Q.C. The Carswell Co. (Ltd.), Toronto, Ont., 4th February, 1897.
8990. THE BILLS OF SALE AND CHATTEL MORTGAGE ACTS OF THE SEVERAL PROVINCES OF THE DOMINION OF CANADA. By John Augustus Barron. (Second Edition.) The Carswell Co. (Ltd.), Toronto, Ont., 5th February, 1897.
8991. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 6TH FEBRUARY, 1897. The Mail Printing Co., Toronto, Ont., 6th February, 1897.
8992. GAGE'S BUSY WORK BOOK. (For First Book Classes.) No. A. The W. J. Gage Co. (Ltd.), Toronto, Ont., 6th February, 1897.
8993. DON'T TELL HER THAT YOU LOVE HER ; or, MANKIND IS SELDOM TRUE. Words and Music by Paul Dresser. Whaley, Royce & Co., Toronto, Ont., 6th February, 1897.
8994. THE HANDICAP. (March and Two-Step Dance.) By George Rosey. Whaley, Royce & Co., Toronto, Ont., 6th February, 1897.
8995. MASSEY'S MAGAZINE. (February, 1897.) The Massey Press, Toronto, Ont., 6th February, 1897.
8996. HUGHES' INTEREST TABLES AND BOOK OF DAYS COMBINED. Charles M. C. Hughes, Montreal, Que., 6th February, 1897.
8997. FORMULE POUR SOUMISSION D'ÉPREUVES PHOTOGRAPHIQUES AUX PERSONNES QUI POSENT POUR PORTRAIT. J. N. Laprés, Montréal, Qué., 6 février 1897.
8998. THE DARKIES' CRADLE SONG. Words by H. G. Wheeler. Music by J. W. Wheeler. Whaley, Royce & Co., Toronto, Ont., 8th February, 1897.
8999. THE DANCING DARKEY. (For Piano.) By Geo. L. Lansing. Whaley Royce & Co., Toronto, Ont., 8th February, 1897.
9000. NEW MURRAY HILL MARCH. (Two-Step.) By J. J. Dunn, jr. Whaley, Royce & Co., Toronto, Ont., 8th February, 1897.
9001. REPORTS OF CASES DECIDED IN THE COURT OF APPEAL DURING THE YEAR 1896. (Volume XXIII.) The Law Society of Upper Canada, Toronto, Ont., 8th February, 1897.
9002. MÉTHODE D'ACCOMPAGNEMENTS. Alexandre. (Pour Piano et Orgue.) J. A. Ethier, Montréal, Qué., 9 février 1897.
9003. THE CANADIAN LAW LIST, 1897. H. R. Hardy, Toronto, Ont., 9th February, 1897.
9004. AUF WIEDERSEHEN. (Menuet for Piano.) By Mary O'Hara, Toronto, Ont., 11th February, 1897.
9005. RED ROSES. (Song for Mezzo Soprano or Alto.) Words by Charles D. Bingham. Music by W. O. Forsyth. A. & S. Nordheimer, Toronto, Ont., 11th February, 1897.

9006. **THE CLOCK STRUCK ONE.** By Fergus Hume. Published in "The Globe," Toronto, Ont. (Temporary Copyright.) National Press Agency (Ltd.), Whitefriars Street, London, England, 11th February, 1897.
9007. **LOVE AND FORTUNE.** A Romance of South Africa. By Helen Mathers. Published in "The Herald," Hamilton, Ont. (Temporary Copyright.) National Press Agency (Ltd.), Whitefriars Street, London, England, 11th February, 1897.
9008. **SWEET ROSIE O'GRADY.** Words and Music by Maude Nugent. Whaley, Royce & Co., Toronto, Ont., 12th February, 1897.
9009. **YOU'RE NOT THE ONLY PEBBLE ON THE BEACH.** Words by Harry Braisted. Music by Stanley Carter. Whaley, Royce & Co., Toronto, Ont., 12th February, 1897.
9010. **MAP OF FAIRVIEW MINING CAMP, OSOYOOS, B.C.** Compiled by F. G. Richards. (From Official Surveys and Records.) Wm. A. Dier & Augustus A. Davidson, Victoria, B.C., and Richard Russell, Hamilton, Ont., 12th February, 1897.
9011. **THE DELINEATOR.** (A Journal of Fashion, Culture and Fine Arts. March, 1897.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th February, 1897.
9012. **THE GLASS OF FASHION UP TO DATE.** (March, 1897.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 13th February, 1897.
9013. **THE CANADIAN MAGAZINE,** (November, 1896.) The Ontario Publishing Co. (Ltd.), Toronto, Ont., 13th February, 1897.
9014. **THE CANADIAN MAGAZINE.** (February, 1897.) The Ontario Publishing Co. (Ltd.), Toronto, Ont., 13th February, 1897.
9015. **ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 13TH FEBRUARY, 1897.** The Mail Printing Co., Toronto, Ont., 13th February, 1897.
9016. **KAINOBIOS ; or, NEW LIFE.** (Booklet.) W. E. Dobson, Toronto, Ont., 15th February, 1897.
9017. **CHIC POLKA.** Composed by Jas. H. Campbell. Arranged By Al. Henderson. James H. Campbell, Montreal, Que., 15th February, 1897.
9018. **REVEREND HENRY SCADDING.** (Photo.) J. J. Millikin, Toronto, Ont., 17th February, 1897.
9019. **THE CANADA LAW JOURNAL.** (Volume XXXII.) From January to December, 1896. A. H. O'Brien, Ottawa, Ont., 17th February, 1897.
9020. **JUST A STOLEN LETTER.** (Song.) Words and Music by Thomas Hosking, Toronto, Ont., 18th February, 1897.
9021. **MAP OF THE NORTH FORK AND WILD HORSE DISTRICTS, SITUATED ON SALMON RIVER, NELSON MINING DIVISION, WEST KOOTENAY, B.C.** John Philip Martin, Rossland, B.C., 18th February, 1897.
9022. **MINING MAP OF THE TRAIL CREEK MINING DIVISION, SHOWING CLAIMS IN THE VICINITY OF COLUMBIA RIVER, ROSSLAND, AND CHRISTINA LAKE, WEST KOOTENAY, BRITISH COLUMBIA.** John Philip Martin, Rossland, B.C., 18th February, 1897.
9023. **ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 20TH FEBRUARY, 1897.** The Mail Printing Co., Toronto, Ont., 20th February, 1897.
9024. **THE TORONTO CITY DIRECTORY, 1897, WITH MAP.** The Might Directory Company of Toronto (Ltd.), Toronto, Ont., 20th February, 1897.
9025. **A SOUVENIR OF MUSICAL TORONTO.** H. H. Godfrey, Toronto, Ont., 22nd February, 1897.
9026. **THE MERCANTILE COMPANY OF CANADA, LEGAL AND BANK DIRECTORY, 1897.** The Mercantile Company of Canada, Montreal, Que., 22nd February, 1897.
9027. **FIELD TESTS OF GOLD AND SILVER ORES. (What is Their Value?)** By Wm. Hamilton Merritt, Toronto, Ont., 22nd February, 1897.
9028. **HISTORY OF THE UNITED STATES.** Scaife's Comparative and Synoptical System of History, Applied to all Countries. (Student's Edition.) The Comparative Synoptical Chart Co. (Ltd.), Victoria, B.C., 23rd February, 1897.
9029. **QUEEN'S DIAMOND JUBILEE. Polka March. (Militaire.)** By Mrs. T. R. Ferguson, Toronto, Ont., 24th February, 1897.

9030. TRUSTING ONLY YOU. (Song.) Words and Music by Gussie L. Davis. Whaley, Royce & Co., Toronto, Ont., 24th February, 1897.
9031. CATALOGUE No. 37. SPRING AND SUMMER 1897. The T. Eaton Co. (Ltd.), Toronto, Ont., 24th February, 1897.
9032. THE LAND OF THE MAPLE. (Patriotic Song.) Words and Music by H. H. Godfrey, Toronto, Ont., 25th February, 1897.
9033. EXERCISES IN FRENCH PROSE. By John Squair, B.A., and John Home Cameron, B.A. The W. J. Gage Co. (Ltd.), Toronto, Ont., 25th February, 1897.
9034. LITTLE PEOPLE'S SEAT WORK. (No. 1. For First Grade.) Arranged by M. Nimmons. The Copp, Clark Co. (Ltd.), Toronto, Ont., 25th February, 1897.
9035. TARIFFS OF COSTS UNDER THE JUDICATURE ACT. (With Index to Tariff "A.") Practical Directions and Precedents of Bills of Costs. By J. A. McAndrew, Toronto, Ont., 25th February, 1897.
9036. THE CANADIAN INDISPENSABLE REGISTER. Stubbs, Bradley & Co., Montreal, Que., 25th February, 1897.
9037. THE HISTORY OF A TWO-DOLLAR BILL. By "Philo." Published in "The Canadian Journal of Commerce," Montreal, Que. Temporary Copyright.) M. S. Foley, Montreal, Que., 25th February, 1897.
9038. AN UP-TO-DATE MAP OF THE MARITIME PROVINCES. (For Business Men, Tourists and Sportsmen.) Joseph S. Knowles, St. John, N.B., 25th February, 1897.
9039. CONFEDERATION DOCUMENTS. Edited by Joseph Pope. The Carswell Co. (Ltd.), Toronto, Ont., 26th February, 1897.
9040. L'AMOUR, LES FEMMES ET LE MARIAGE. Leprohon & Leprohon, Montréal, Qué., 26 février 1897.
9041. L'ART DE FAIRE L'AMOUR; ou, LA PENDULE DE L'AMANT. Leprohon & Leprohon, Montréal, Qué., 26 février 1897.
9042. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 27TH FEBRUARY, 1897. The Mail Printing Co., Toronto, Ont., 27th February, 1897.
9043. THE STRUGGLE FOR WEST VIRGINIA, 1861. No. 1 Campaigns of the Civil War in the United States. (Chart.) Edmund M. Carleton, Toronto, Ont., 27th February, 1897.