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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. 63,747. Process of Tanning Hides.

(Procédé pour tanner les peaux.)

Samuel Millar, assignee of Charles Millar, both of Glasgow, Scotland, 1st September, 1899; 6 years. (Filed 4th April, 1899.)

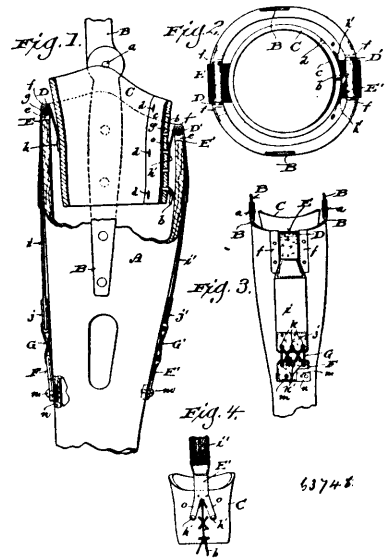
*Claim.*—The process of tanning, consisting in submitting hides or skins, after the lime or other substance used in preparing them for tanning has been thoroughly removed, to a solution of formalin, said solution consisting substantially of one part commercial formalin to one thousand parts of water, then submitting said hides to other tanning liquors until thoroughly tanned, substantially as hereinbefore described.

### No. 63,748. Artificial Limb. (Membre artificiel.)

The Doerrfingler Artificial Limb Company, assignees of Charles Harmon Doerrfingler, Joseph Burg and Joseph Davis, all of Milwaukee, Wisconsin, U.S.A., 1st September, 1899; 6 years. (Filed 18th March, 1899.)

*Claim.*—1st. In an artificial limb, the combination with a hollow outer portion having horizontally disposed rollers journaled in the upper part thereof at both front and rear, of a stump socket practically parallel with and of less diameter than that of said outer portion, extending above and adapted to project downward within the upper part of the latter, but absolutely free from contact therewith, and flexible straps secured at their inner and upper ends to said stump socket and adapted to pass over said rollers and be secured at their outer and lower ends to the outer surface of said outer portion of said limb. 2nd. In an artificial limb, the combination with a hollow outer portion having horizontally disposed rollers journaled in the upper part thereof at both front and rear, of a rearwardly vertically divided stump socket practically parallel with and of less diameter than that of said outer portion, extending above and adapted to project downward within the upper part of the latter, but everywhere absolutely free from contact therewith, flexible and partly elastic straps secured at their inner and upper ends to said stump socket and adapted to pass over said rollers and down outside said outer portion, the portions of said straps connecting the stump socket and outer portion being inelastic, adjustable fastening devices for connecting together the separated rear edges of the said stump socket, and other fastening devices for adjustably connecting the lower ends of said straps to the said outer portion and for taking up the slack of said straps. 3rd. In an artificial limb, the combination with a hollow outer portion having horizontally disposed rollers journaled in the upper part thereof at both front and rear, of a stump socket practically parallel with and of less diameter than that of said outer portion, extending above

and adapted to project downward within, but everywhere absolutely free from contact with, the upper part of the latter, said stump

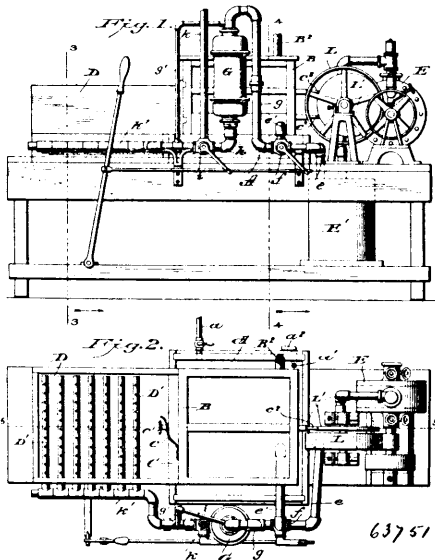


socket being vertically split at the rear, and the adjacent separated edges being provided with lacing perforations, a lacing cord in engagement with said perforated edges for adjustably uniting the said separated edges, a protective flap secured to the inner surface of said stump socket, adjacent to one of said separated edges, and extending over the connected joint between them, a flexible and partly elastic strap secured at its inner and upper end to the front of said stump socket and passing over the front roller of the hollow outer portion, and thence down along the front, and the lower and outer end of said strap being adjustably secured to the lower outer part of said outer portion, and another flexible and partly elastic strap having a forked inner and upper end, the branches of said forked end being separately secured to said stump socket, one on each side of the said separated rear edges thereof, and said strap passing over the rear roller of the hollow outer portion and thence down along the rear of said outer portion and the lower outer end of said strap being adjustably secured to the lower outer part thereof. 4th. In an artificial limb, an artificial ankle-joint, comprising a pair of plates, one of which has rocker bearing with respect to the other, a bolt in yielding connection with one of the plates and extended through the other plate, a spring surrounding the bolt against the latter plate, a nut on said bolt in position to regulate the tension of the spring, an elastic cushion between the forward ends of said plates, another bolt having yielding connection with the forward end of the upper plate and engaged with a longitudinal slot in the lower plate, a spring surrounding the lower portion of the latter bolt, and a nut on said latter bolt in position to regulate tension of the latter spring against an opposing surface.



for carrying the roll of paper, mechanism for intermittently feeding the paper from the roll, a cutter for severing the paper into sheets, and mechanism for drawing the paper over the cutter during the intermittent stoppage of the first named mechanism and for delivering the severed sheet. 17th. In a paper cutting and delivering apparatus, the combination of a device for carrying a roll of paper, a cutter for severing the paper into sheets, mechanism between the roll and the cutter for intermittently feeding the paper from the roll, and mechanism for drawing the paper over the cutter to cut the same during the intermittent stoppage of the first named mechanism. 18th. In a paper cutting and delivering apparatus, the combination of a device for carrying a roll of paper, a cutter for severing the paper into sheets, mechanism between the roll and the cutter for intermittently feeding the paper from the roll, and mechanism for drawing the paper over the cutter to cut the same during the intermittent stoppage of the first named mechanism and for delivering the severed sheets.

**No. 63,751. Process of and Apparatus for Etching Metal Plates.** (*Procédé et appareil pour graver à l'eau forte des plaques métalliques.*)

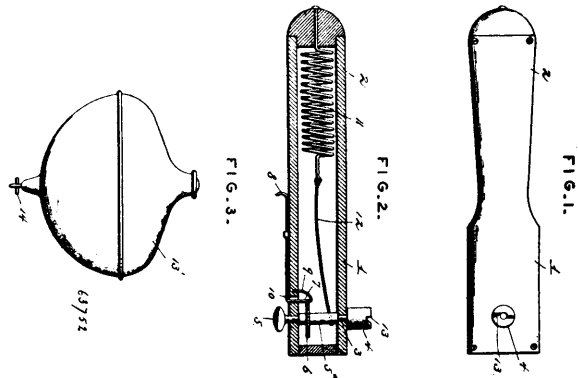


Max Levy, assignee of Louis Edward Levy, both of Philadelphia, Pennsylvania, U.S.A., 1st September, 1899; 6 years. (Filed 1st February, 1899.)

*Claim.*—1st. The process of etching metal plates, which consists in atomizing or spraying a mordant, by means of compressed air against the face of a plate having thereon the design through a resist, so that the dynamic force of the impact will accelerate the chemical action of the mordant, and the compressed air absorb the heat generated by the chemical action of the mordant, for the purpose set forth. 2nd. The process of etching metal plates, consisting in projecting by means of compressed air a mordant which is atomized upon a plate having thereon the design to be etched, the mordant being impacted in the form of atomized spray upon the plate at substantially right angles to its surface, so that the dynamic force of the impact will not effect the resist or design, and the heat evolved by the erosive action of the mordant will be absorbed by the expansion of the air, substantially as set forth. 3rd. The process of etching metal plates, consisting in projecting by means of compressed air a mordant in the form of atomized spray upon a plate maintained within a chamber, said plate having thereon the design to be etched, the mordant being impacted upon the plate at substantially right angles to its surface, so that the dynamic force of the impact will not affect the design, and the heat evolved by the erosive action of the mordant will be absorbed by the air which expands in the chamber, substantially as set forth. 4th. The process of etching metal plates, which consists in projecting a mordant in the form of spray from a plurality of atomizers upon the plate and moving the plate whilst under the action of the mordant. 5th. The process of etching metal plates by a mordant, which consists in atomizing or spraying the mordant upon the under surface of a prepared plate, reciprocating or otherwise moving the plate to change its position with respect to the atomizers, so that the chemical action and dynamic force of the impacted mordant will be equal over the surface of the plate. 6th. The process of etching metal plates by a mordant, which consists in projecting the mordant upward within a chamber upon the under surface of a plate maintained in the chamber so that the mordant will drop therefrom, without flowing, through a body of released compressed air employed to project the mordant and to absorb from it and the plate the heat evolved by the

chemical action of the mordant on the plate. 7th. The process of etching metal plates, consisting in applying to the plate a photographically prepared design and resist, subjecting it in a chamber to the action of a mordant which is impacted upon the plate by air under compression, the expansion of the air absorbing from the plate and mordant the heat evolved by the erosive action of the mordant in etching, and finally washing the plate, substantially as set forth. 8th. The process of etching metal plates by a mordant, which consists in atomizing the mordant against the under surface of the plate maintained in a horizontal position face downwards. 9th. The process of etching metal plates, which consists in projecting or spraying a mordant upward against a plate supported horizontally in a chamber or etching box. 10th. The process of etching metal plates by a mordant, which consists in projecting a mordant mechanically in comminuted form upward against the under surface of a plate having thereon a design, which plate is maintained face downward in a chamber, the mordant after impact upon the plate being permitted to fall therefrom into the body of the mordant from which it was taken. 11th. In an apparatus for etching, the combination with an etching box having means for maintaining a plate therein, of atomizers, a chamber for compressed air connected with the atomizers, and a tank for the mordant, for the purpose set forth. 12th. In an apparatus for the production of etchings, the combination with an etching box having means for sustaining horizontally therein a plate, a tank for the mordant, an air chamber within the etching box, and means for projecting the mordant upward against the plate. 13th. In an apparatus for the production of etchings, the combination with an etching box having slides for supporting a plate, openings for introducing the slide to the etching box, and means for reciprocating the slide, of a tank or receptacle for the mordant, a plurality of devices within the etching box for atomizing or spraying the mordant upward, said devices being arranged at uniform distances apart, and means for conveying air under pressure thereto, substantially as shown. 14th. In an apparatus for etching, the combination of an etching box, a plate support, atomizers for projecting a mordant upon the plate and means for moving the plate support to change its position and the position of the plate or plates carried thereby with respect to the atomizers. 15th. In an apparatus for etching, the combination with an etching box and means for projecting a mordant upon a plate positioned therein, of a washing compartment having means for projecting a fluid, and a plate carrier which is movable from the etching box into the washing compartment, substantially as shown. 16th. In an apparatus for etching, the combination of a tank containing compressed air, an etching box or chamber having therein a plurality of atomizers, means for atomizing a mordant by air under compression, so that the mordant will be impacted upon the plate in the form of comminuted spray and means for supporting and moving the plate in the etching box, for the purpose set forth. 17th. In an etching apparatus, an etching box having an air chamber with atomizers, a tank adapted to contain a mordant which surrounds the atomizers, means for compressing air and supplying it through the air chamber to the atomizers, a plate carrying slide reciprocally mounted within the etching box and removable therefrom, a water tank in communication with a water supply and with the air compressor, a washing compartment having therein a series of perforated pipes, and cocks for controlling the air and water supply, the parts being organized for co-operation, substantially as shown and for the purpose set forth.

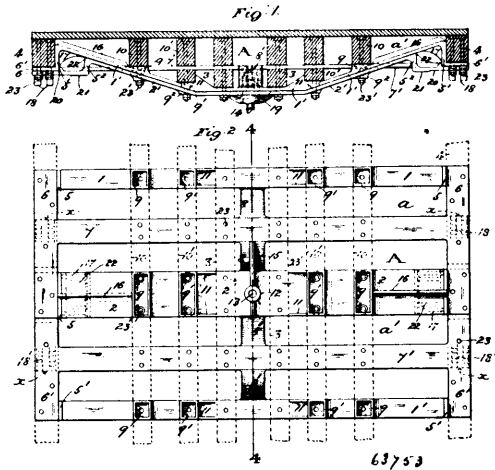
**No. 63,752. Top Spinner.** (*Appareil à faire tourner les toupies.*)



Mary K. Zapt, assignee of Stephen G. Warren, both of Attica, New York, U.S.A., 1st September, 1899; 6 years. (Filed 31st January, 1899.)

*Claim.*—In a top spinner, a casing or hollow handle, a rotatable shaft having a notched head and winding key extending laterally through the casing, a toothed wheel and drum upon said shaft within the casing, a cord connected with said winding drum, a spring connected with said cord, a trigger extending through a slot in the casing of said spinner and provided with a handle, and a spring connected with said trigger and serving to hold the trigger normally in engagement in said toothed wheel.



**No. 63,753. Car Transom.** (*Entrecroise de châssis de chars.*)

Morse B. Schaffer and Clarence H. Howard, both of St. Louis, Missouri, U.S.A., 1st September, 1899; 6 years. (Filed 11th July, 1899.)

*Claim.*—1st. A car transom composed of two pieces, each piece having a top plate and a bottom plate arranged transversely to the car in different vertical planes, each end of the bottom plate having a depending flange, the bottom plate of one piece having the body centre bearing and overlapping the bottom plate of the other piece having the centre plate and the side bearings, and each piece having a horizontal plate arranged longitudinally to the car at each side thereof, and united to the corresponding end of the top plate and to the corresponding flange of the bottom plate, the said horizontal side plates having lugs for the truss rods, all the said parts being integral with the said pieces respectively, substantially as and for the purpose hereinbefore set forth. 2nd. A car transom composed of two pieces, each piece having bottom plates arranged transversely to the car in different vertical planes, each end of the bottom plates respectively having a depending flange, one of the bottom plates of one piece having the body centre bearing and overlapping the corresponding bottom plate of the other piece having the centre plate and the side bearings, and each piece having a horizontal plate arranged longitudinally to the car at each side thereof, and united to the corresponding flanges of the bottom plates, the said horizontal side plates having the lugs for the truss rods, and having tubular enlargements, all of the said parts being integral with said pieces respectively, substantially as and for the purpose hereinbefore set forth. 3rd. A car transom composed of two pieces respectively integral, one piece partly overlapping the other piece, and each piece having two surfaces arranged transversely to the car in different vertical planes, and having a horizontal surface arranged longitudinally to the car at each side thereof, and uniting with the said transverse surfaces, the said surfaces bearing upon the undersides of the car sills, one of the said pieces having integral therewith the centre bearing and lugs for the truss rods, and the other piece having integral therewith the centre plate, the side bearings and lugs for the truss rods, substantially as and for the purpose hereinbefore set forth. 4th. A car transom composed of two pieces respectively integral, one piece partly overlapping the other piece, and each piece having two surfaces arranged transversely to the car in different vertical planes, and having a horizontal surface arranged longitudinally to the car at each side thereof, and uniting with the said transverse surfaces, the said surfaces bearing upon the undersides of the car sills, one of the said pieces having integral therewith the centre bearing, and the other piece having integral therewith the centre plate and the side bearings, substantially as and for the purpose set forth.

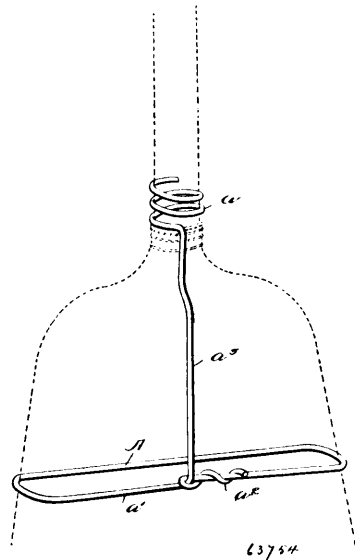
**No. 63,754. Stiffening Broom Device.**

(*Appareil à roidir les balais.*)

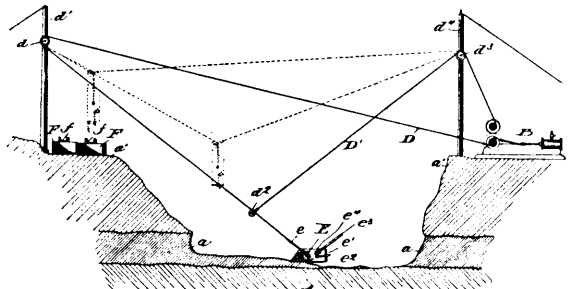
Louis Albert Wilkins Godwin and Walter Lang Fraser, both of Halifax, Nova Scotia, Canada, 1st September, 1899; 6 years. (Filed 5th July, 1899.)

*Claim.*—1st. A device for stiffening brooms, comprising a wire frame having a loop at one end adapted to encircle the broom body, and a coil at the other end adapted to encircle the broom handle, substantially as described. 2nd. A device for stiffening brooms, comprising a wire frame having a loop at one end adapted

to encircle the broom body, and having its extremity twisted about a strand of said loop, a coil at the upper end adapted to encircle the



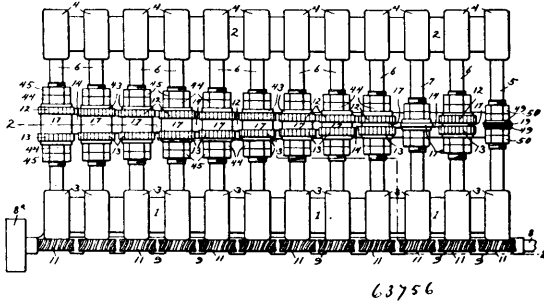
broom handle, and a substantially straight body portion connecting the said coil and the said loop, substantially as described.

**No. 63,755. Gravel Excavating and Elevating Apparatus.** (*Appareil à creuser et élever le gravier.*)

Henry C. Elliott, New York City, New York, U.S.A., assignee of Louis Eldon Miller, Dawson, North-west Territory, Canada, 1st September, 1899; 6 years. (Filed 19th June, 1899.)

*Claim.*—1st. In an excavating and elevating apparatus, the combination with two independent hoisting drums, and means for operating and controlling the same, of a main cable, extending from a receptacle, over a pulley secured to a fixed support at a distance from said drums, and thence to one of said drums, and an auxiliary cable secured to the other drum, and having a sliding engagement with the main cable between the receptacle and said pulley, substantially as described. 2nd. In an excavating and elevating apparatus, the combination with two independent hoisting drums, and means for operating and controlling the same, of a receptacle, a main cable extending from one of said drums, over a pulley secured to a stationary support at a distance from the hoisting drums, and thence to said receptacle, a sheave on said main cable between the receptacle and said pulley, and an auxiliary cable secured to said sheave and extending to the other of said hoisting drums, substantially as described. 3rd. In an excavating and elevating apparatus, the combination with two independent hoisting drums, and means for operating and controlling the same, of a receptacle, a stationary support at a distance from and entirely independent of said hoisting mechanism, a pulley carried by said support, a main cable extending from one of said drums over said pulley, to said receptacle, a sheave on said cable between the receptacle and said pulley, an auxiliary cable connected to said sheave and extending to the other drum, and means for driving the drum for the auxiliary cable at greater speed than the drum for the main cable, substantially as described.

**No. 63,756. Machine for making Expanded Metal.**  
(Machine pour la fabrication de métal expansible.)

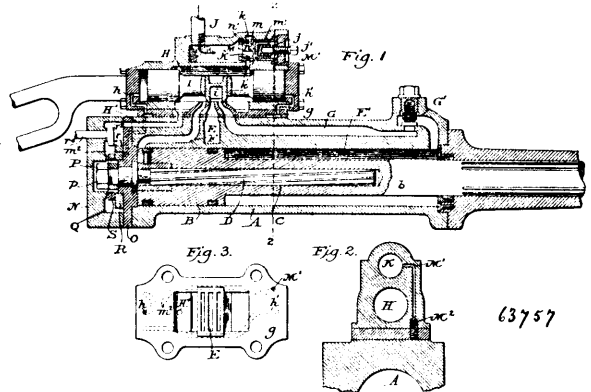


Frank H. Pitkin and Josiah Thompson, both of Chicago, Illinois, U.S.A., 1st September, 1899; 6 years. (Filed 12th May, 1899.)

*Claim.*—1st. A machine for making expanded metal, having in combination a plurality of cutters arranged in converging series and a table arranged between said cutters and having knives at its edges co-operating with the cutting faces of said cutters, substantially as set forth. 2nd. A machine for making expanded metal, having in combination a sheet support, a plurality of rotary cutters arranged in pairs axially and projecting past the edges of said support on diametrically opposite sides thereof, and each cutter on each side of the support having its cutting edge in a different vertical plane from the others on the same side, substantially as set forth. 3rd. A machine for making expanded metal, having in combination a rotary cutter, a frame having vertical guideways, knives located therein on opposite sides of said frame and vertically adjustable stocks on opposite sides of said frame and upon which stocks said knives rest, and a vertically adjustable pressure roll held between said stocks under said rotary cutter, substantially as set forth. 4th. A machine for making expanded metal, having in combination a number of transverse shafts having end bearings, a support for the sheet to be expanded arranged transversely of and under said shafts, two cutters located on each of said shafts, at an intermediate point thereof, one on each side of said support and the cutting edges of the cutters on one shaft being located in different vertical planes from the cutting edges of the cutters on the other shafts, substantially as set forth. 5th. A machine for making expanded metal, having in combination a plurality of rotary cutters star shaped in axial section and arranged in converging series and having their inner cutting faces arranged in different vertical planes, and knives located adjacent to the inner face of each of said cutters and co-operating therewith, substantially as set forth. 5th. A machine for making expanded metal, having in combination a plurality of rotating members having peripheral projections and a support for holding the sheet to be expanded against said projections, located adjacent to the plane of rotation of said members, and past the edge of which support said projections extend, said rotating members and support being so relatively arranged that the body portions of the rotating members do not cut into the plane in which the supporting face of the support lies and said rotating members being arranged in a line at an angle to the line of movement of the sheet and one in advance of the other, substantially as set forth. 7th. A machine for making expanded metal, having in combination a plurality of rotating members provided with peripheral projections having their engaging faces axially elongated and provided on their inner sides with cutting edges, and a support for holding the sheet to be expanded against said projections, located adjacent to the plane of rotation of said members and past the edge of which support said projections extend, said rotating members and support being so relatively arranged that the body portions of the rotating members do not cut into the plane in which the supporting face of the support lies and said rotating members being arranged in different parallel planes and one in advance of the other, substantially as set forth. 8th. A machine for making expanded metal, having in combination a plurality of rotating members provided with peripheral projections having their engaging faces axially elongated and parallel with the plane of the sheet to be expanded and provided on their inner sides with cutting edges, and a support for holding the sheet to be expanded against said projections, located adjacent to the plane of rotation of said members and past the edge of which support said projections extend, said rotating members and support being so relatively arranged that the body portions of the rotating members do not cut into the plane in which the supporting face of the support lies and said rotating members being arranged in different vertical planes from the cutting edges of the cutters on the other shafts, substantially as set forth. 9th. A machine for making expanded metal, having in combination a plurality of rotating members provided with peripheral projections, and a support for holding the sheet to be expanded against said projections, located adjacent to the plane of rotation of said members and past the edge of which support said projections extend, said rotating members and support being so relatively arranged that the body portions of the rotating members do not cut into the plane in which the supporting face of the support lies and said rotating members being arranged

one in advance of the other in a line at an angle to the line of movement of the sheet and on each side of said support, substantially as set forth. 10th. A machine for making expanded metal having in combination a plurality of rotating members provided with peripheral projections, knives for holding the sheet to be expanded against said projections, located adjacent to the plane of rotation of said members and past the edges of which knives said projections extend, said knives and rotating members being so arranged that the body portions of the rotating members do not extend beyond the edges of the knives and aids rotating members and knives being located in a line at an angle to the line of movement of the sheet and at different points with reference to the length of the sheet, substantially as set forth.

**No. 63,757. Coal Cutting Machine.**  
(Machine à couper le charbon.)



The Ingersoll-Sergeant Drill Company, No. 26 Cortland Street, New York City, New York, assignee of Henry Clark Sergeant, Westfield, New Jersey, 1st September, 1899; 6 years. (Filed 4th April, 1899.)

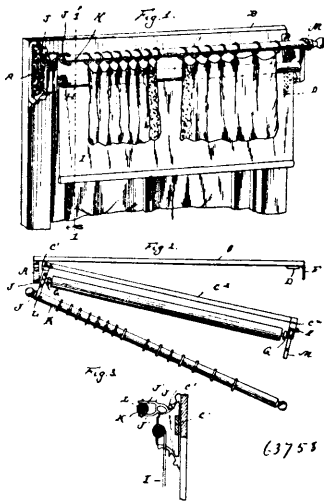
*Claim.*—1st. In a reciprocating engine, the combination with a cylinder having an inlet and exhaust ports, a main valve controlling the same, and a piston working in said cylinder, of a normally inactive governing valve for reducing the speed of the piston, and means for actuating the governing valve when the piston moves beyond the normal working point and for rendering it inactive when the piston resumes its normal stroke. 2nd. In a reciprocating engine, the combination with a cylinder having inlet and exhaust ports, a main valve controlling the same and a piston working in said cylinder, of a normally inactive governing valve for diminishing the main air supply, and means operated by the stroke of the piston for partially closing the governing valve when the piston moves beyond the normal working point and for opening said governing valve when the piston resumes its normal stroke. 3rd. In a reciprocating engine, the combination with a cylinder having inlet and exhaust ports, a main valve controlling the same, and a piston working in said cylinder, of a normally inactive governing valve for diminishing the main air supply to the main valve, and means operated by the stroke of the piston for operating the governing valve to diminish the main air supply when the piston moves beyond the normal working point, and for restoring the same when the piston resumes its normal stroke. 4th. In a reciprocating engine, the combination with a cylinder having inlet and exhaust ports and passages, a main valve controlling the same, and a piston reciprocated in said cylinder, of a movable, normally inactive governing valve controlling the main air supply, an adjustable stop for determining the active position of said governing valve and means for moving said governing valve into position to diminish said main air supply when the piston moves beyond the normal working point. 5th. In a reciprocating engine, the combination with a cylinder having inlet and exhaust ports and passages, a main valve controlling the same and a piston reciprocated in said cylinder, of a movable, normally inactive governing valve for diminishing the main air supply interposed between said main air supply and the main valve, an adjustable stop for determining the active position of said governing valve, and means operated by the stroke of the piston for moving said governing valve into and holding the same in operative position to diminish said main air supply when the piston moves beyond the normal working point.

**No. 63,758. Window Shade and Curtain Hanger.**  
(Abat-jour de fenêtre et porte-rideau.)

William H. McFadden and John Love, assignees of Josiah P. Lucas, all of Cadiz, Ohio, U.S.A., 1st September, 1899; 6 years. (Filed 1st March, 1899.)

*Claim.*—1st. In a window shade and curtain hanger, the combination with a swinging frame, of a shade roller carried thereby, and a curtain pole pivotally mounted on said frame, whereby said pole may be swung outwardly with the frame or independently

thereof, substantially as described. 2nd. The combination with a bracket secured at one side of the window casing, of a swinging



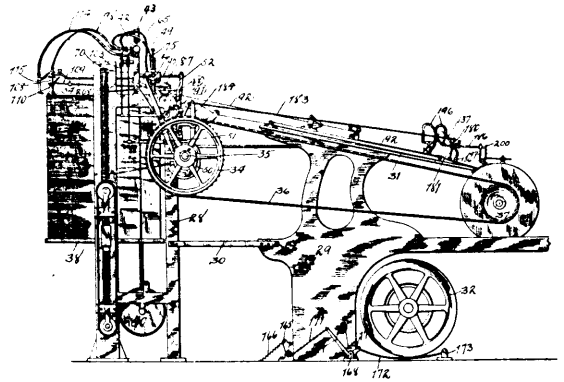
frame pivoted to said bracket, a supporting bracket on one end of the swinging frame provided with parallel arms, a curtain pole pivoted between said parallel arms so that it may be swung outwardly with the bracket or independently thereof, and a second supporting bracket supported at the opposite side of the window casing and provided with spring arms to receive and hold the free end of the pole, substantially as described. 3rd. In a window shade and curtain hanger, the combination with a bracket, secured to one side of a window frame, of a swinging frame hinged at one end to said bracket and extending transversely of the window frame, shade roller supports secured to the end pieces of said swinging frame, supporting brackets mounted upon ends of the end pieces of said swinging frame and each provided with a pair of parallel spring arms, a curtain pole arranged above the shade roller brackets and pivoted at one end between the spring arms of one of said supporting brackets and adapted to have its free end received and retained in the opposite supporting bracket, and means for securing the free end of the swinging frame to the window frame, substantially as described. 4th. In a window shade and curtain hanger, the combination, with a bracket secured upon one side of the window casing, of a swinging frame comprising and pieces connected by a bar extending transversely of the casing, one of said end pieces pivoted to said bracket and the other provided with a latch device to engage a keeper on the casing, a support on said casing to sustain the free end of the swinging frame, a shade roller mounted in the brackets secured to the inner sides of the end pieces of the swinging frame, a bracket secured upon the upper end of each of said end pieces and provided with outwardly projecting parallel spring arms, and a curtain pole pivoted at one end between the arms of one bracket and adapted to have its free end received by and retained in the arms of the other bracket, the construction and arrangement being such that said pole may be swung outwardly with the frame or independently thereof, substantially as and for the purpose described.

**No. 63,759. Pneumatic Sheet Separating and Feeding Machine.** (*Machine pour la separation et alimentation des feuilles pneumatiques.*)

Lewis Benedict, assignee of George Frederick Leiger, both of Chicago, Illinois, U.S.A., 5th September, 1899; 6 years. (Filed 30th June, 1899.)

*Claim.*—1st. In a pneumatic sheet feeding machine, the combination with a reciprocating carriage, a pneumatic picker mounted upon said carriage, and means for automatically controlling the air pressure in said picker, and means for automatically raising said picker as soon as it engages with the sheet, of mechanism adapted to reciprocate said carriage and to temporarily hold it stationary at its rearward position before moving it forward, substantially as described. 2nd. In a pneumatic sheet feeding machine, the combination with a reciprocating carriage, an extensible pneumatic picker mounted on said carriage and adapted to engage with the surface of a sheet of paper, means for automatically controlling the air pressure in said picker, and means for automatically raising said picker as soon as it engages with the sheet, of mechanism adapted to reciprocate said carriage and to temporarily hold it stationary at its rearward position before moving it forward, substantially as described. 3rd. In a pneumatic sheet feeding machine, the combination with a reciprocating carriage, an extensible pneumatic picker mounted on said carriage and adapted to engage with the surface of a sheet of paper,

means for automatically controlling the air pressure in said picker, and means for automatically raising said picker as soon



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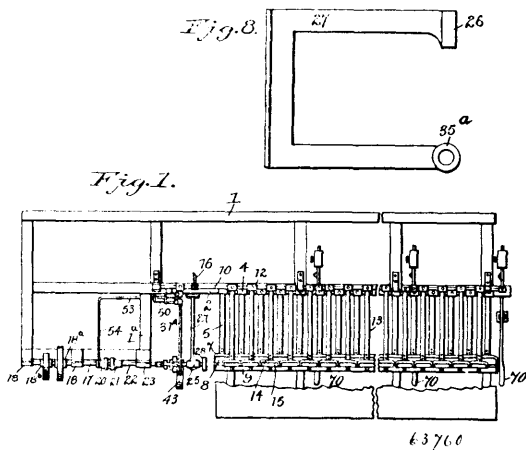
as it engages with the sheet, of mechanism adapted to reciprocate said carriage and to temporarily hold it stationary at its rearward position before moving it forward, and means for blowing a blast of air under the sheet while said carriage is held in its rearward position, substantially as described. 4th. In a sheet feeding machine, the combination with a carriage, mechanism for reciprocating the same, extensible picker mechanism carried by said carriage and adapted to engage a sheet of paper, valves controlling said pickers, and mechanism adapted to automatically open and close said valves as said carriage reciprocates, of pneumatically operated mechanism adapted to positively lift said picker mechanism before the forward movement of said carriage begins and to allow said picker mechanism to drop at the rearward limit of the motion of said carriage, substantially as described. 5th. In a sheet feeding machine, the combination with a carriage, mechanism for reciprocating the same, extensible picker mechanism carried by said carriage and adapted to engage a sheet of paper, valves controlling said pickers, and mechanism adapted to automatically open and close said valves as said carriage reciprocates, of a spring actuated rod adapted to engage said picker mechanism and normally raise and hold the same in a raised position, pneumatically operated mechanism adapted to temporarily force said spring actuated rod downward to allow said picker mechanism to fall and engage with the sheet, valves controlling said pneumatically operated mechanism, and mechanism adapted to automatically open and close said valves, substantially as described. 6th. In a sheet feeding machine, the combination with a carriage, mechanism for reciprocating the same, extensible picker mechanism carried by said carriage and adapted to engage a sheet of paper, valves controlling said picker mechanism, and mechanism adapted to automatically open and close said valves as said carriage reciprocates, of a spring actuated rod adapted to engage said picker mechanism and normally raise and hold the same in a raised position, pneumatically operated mechanism mounted on said carriage and adapted to temporarily force said spring actuated rod downward to allow said picker mechanism to fall and engage with the sheet, valves controlling said pneumatically operated mechanism, and mechanism adapted to automatically open and close said valves, substantially as described. 7th. In a sheet feeding machine, the combination with a carriage, mechanism for reciprocating the same, extensible picker mechanism carried by said carriage and adapted to engage a sheet of paper, valves controlling said picker mechanism, and mechanism to automatically open and close said valves as said carriage reciprocates, of a spring actuated rod adapted to engage said picker mechanism and normally raise and hold the same in a raised position, a cylinder mounted on said carriage, a piston mounted in said cylinder and connected with said spring actuated rod, a vacuum tube connected with said cylinder below said piston, valves controlling said vacuum tube, and mechanism adapted to automatically open and close said last named valves as said carriage reaches its rearward position, substantially as described. 8th. The combination with a pneumatic picker, of a flexible cup mounted on said picker and adapted to engage with a sheet of paper, and a clamp adapted to adjustably compress said cup laterally, substantially as described. 9th. The combination with an extensible pneumatic picker, of a flexible cup mounted on said picker and adapted to engage with the surface of a sheet of paper, clamps bearing on said cup, and a thumb screw engaging said clamps and adapted to adjustably compress said cup laterally, substantially as described. 10th. In a sheet feeding machine, the combination with mechanism adapted to engage the front end of a sheet and feed the same forward, an extensible picker mechanism adapted to engage the rear end of the sheet, a vacuum tube connected with said extensible picker mechanism, valves controlling said vacuum tube, and mechanism adapted to automatically open and close said valves a plurality of times before said sheet engaging and forwarding mechanism begins to forward the sheet, substantially as described. 11th. In a sheet feeding machine, the combination with mechanism adapted to engage the front end of a

sheet and feed the same forward, extensible picker mechanism adapted to engage the rear end of the sheet, a vacuum tube connected with said extensible picker mechanism, valves controlling said vacuum tube, and mechanism adapted to automatically open and close said valves a plurality of times before said sheet engaging and forwarding mechanism begins to forward the sheet, of blowers adapted to blow a current of air forward from the rear beneath said sheet as the same is raised, substantially as described. 12th. In a sheet feeding machine, the combination with mechanism adapted to engage the front end of a sheet and feed the same forward, of extensible picker mechanism adapted to engage the rear end of the sheet, a vacuum tube connected with said extensible picker mechanism, valves controlling said vacuum tube, and mechanism adapted to automatically open and close said valves twice before the sheet forwarding mechanism begins to forward the sheet, the first of said openings of said valves being for a shorter and the second for a relatively longer interval of time, substantially as described. 13th. In a sheet feeding machine, the combination with mechanism adapted to engage the front end of a sheet and feed the same forward, of extensible picker mechanism adapted to engage the rear end of the sheet, a vacuum tube connected with said extensible picker mechanism, valves controlling said vacuum tube, mechanism adapted to automatically open and close said valves twice before the sheet forwarding mechanism begins to forward the sheet, the first of said openings of said valves being for a shorter and the second for a relatively longer interval of time, and blowers adapted to blow a current of air forward under the lifted sheet, substantially as described. 14th. The combination with a longitudinally movable bar, and mechanism adapted to reciprocate the same, of a guide removably mounted thereon adapted to engage the side edge of a sheet of paper, and having one or more openings, a vacuum tube connected with said guide and with said openings, valves controlling said vacuum tube, and mechanism adapted to automatically open and close said valves as said bar reciprocates, substantially as described. 15th. In a sheet feeding machine, the combination with a longitudinally movable bar, and mechanism adapted to reciprocate the same, of a guide removably mounted on said bar adapted to permit the passage of a sheet between it and the said bar and to engage the side edge of said sheet, and having one or more openings, a vacuum tube connected with said guide and with said openings, valves controlling said vacuum tube, and mechanism adapted to automatically open and close said valves as said bar reciprocates, substantially as described. 16th. In a sheet feeding machine, the combination with a longitudinally movable bar, mechanism adapted to reciprocate the same, a guide removably secured thereto adapted to engage the side edge of a sheet of paper and having one or more openings, a vacuum tube connected with said guide and with said openings, a valve controlling said vacuum tube, and mechanism adapted to automatically open and close said valve as said bar reciprocates, of power shifting mechanism, and mechanism connected with said valve and with said power shifting mechanism and adapted to automatically operate said power shifting mechanism in case no sheet of paper is opposite the openings of said guide when said valve is open, substantially as described. 17th. In a sheet feeding machine the combination with a longitudinally movable bar, mechanism adapted to reciprocate the same, a guide removably secured thereto adapted to engage the side edge of a sheet of paper and having one or more openings, a vacuum tube connected with said guide and with said openings, a valve controlling said vacuum tube, and mechanism adapted to automatically open and close said valve as said bar reciprocates, of power shifting mechanism, mechanism connected with said valve and with said power shifting mechanism and adapted to automatically operate said power shifting mechanism in case no sheet of paper is opposite the openings of said guide when said valve is open, a brake, and mechanism connecting said brake with said valve and adapted to be thrown into operation and brake the machine in case no sheet of paper is opposite the openings of said guide when said valve is open, substantially as described. 18th. In a sheet feeding machine, the combination with a longitudinally movable bar, mechanism adapted to reciprocate the same, a guide removably secured thereto adapted to engage the side edge of a sheet of paper and having one or more openings, a vacuum tube connected with said guide and with said openings, a valve controlling said vacuum tube, and mechanism adapted to automatically open and close said valve as said bar reciprocates, of power shifting mechanism, mechanism connected with said valve and with said power shifting mechanism and adapted to automatically operate said power shifting mechanism in case a sheet of paper is not opposite the openings of said guide when said valve is open, a brake, and mechanism connecting said brake with said power shifting mechanism and adapted to be operated by said power shifting mechanism and to brake the machine after the power is shut off, in case no sheet of paper is opposite the openings of said guide when said valve is open, substantially as described. 19th. The combination with a longitudinally movable bar, mechanism adapted to reciprocate the same, and an adjustable shoulder adapted to contact said bar and limit its longitudinal movement, of a guide removably secured to said bar adapted to engage the side edge of a sheet of paper and having one or more openings, a vacuum tube connected with said guide and with said openings, a valve controlling said vacuum tube, and mechanism adapted to open and close said valve as said bar reciprocates, substantially as described. 20th. In a sheet feeding machine, the combination with a longitudinally

movable bar, mechanism adapted to positively move said bar longitudinally in one direction, a spring engaging said bar and adapted to return said bar to its first position, and an adjustable shoulder adapted to contact said bar and limit its spring return movement, of a guide removably secured to said bar adapted to engage the side edge of a sheet of paper and provided with openings, a vacuum tube connected with said guide and with said openings, a valve controlling said vacuum tube, and mechanism adapted to open said valve at the moment that the spring return movement of said bar begins and to close the same at the end of said spring return movement, substantially as described. 21st. In a sheet feeding machine, the combination with sheet forwarding devices, guides adapted to contact and align the lead edge of a sheet, a tube open at one end, a valve connected with said tube, a vacuum chamber connected with said valve, mechanism adapted to automatically open and close said valve, and mechanism placed in alignment with said guides and adapted to automatically close the open end of said tube upon being contacted by the lead edge of the sheet, of power shifting mechanism connected with said valve and adapted to be thrown into operation and shut off the power in case the open end of said tube is not closed when said valve is open, substantially as described. 22nd. In a sheet feeding machine, the combination with sheet forwarding devices, guides adapted to receive a sheet from said sheet forwarding devices and align the same, a longitudinally and vertically adjustable tube open at one end, means for longitudinally and vertically adjusting said tube, a valve connected with said tube, a vacuum chamber connected with said valve, mechanism adapted to automatically open and close said valve, mechanism placed in alignment with said guides and adapted to automatically close the open end of said tube upon being contacted by the lead edge of the sheet, of power shifting mechanism connected with said valve and adapted to be thrown into operation and shut off the power in case the open end of said tube is not closed when said valve is open, substantially as described. 23rd. In a sheet feeding machine, the combination with sheet forwarding devices, guides adapted to receive and align the forwarded sheet, a tube open at one end, a valve connected with said tube, a vacuum chamber connected with said valve, and mechanism adapted to automatically open and close said valve, of a lever carried by said tube, having one arm provided with a cap adapted to close the open end of said tube, and having the other arm close to said guides and adapted to be contacted by the leading edge of a sheet so as to swing said lever and close said tube by said cap when the lead edge of the sheet is in alignment with said guides, and power shifting mechanism adapted to be thrown into operation and to shut off the power in case said lever is not contacted by the lead edge of said sheet when said valve is open, substantially as described. 24th. In a pneumatic sheet registering mechanism, the combination with a vacuum chamber, a swinging pneumatic tube adapted to engage the lead edge of a sheet of paper, a valve connecting said swinging pneumatic tube with said vacuum chamber, and mechanism for automatically opening and closing said valve, of a machine stopping device, and pneumatically operating mechanism connected with said swinging tube and with said machine stopping device, and adapted to operate said machine stopping device if the said swinging tube is open to permit access of air thereto when the connection with the vacuum chamber between said tube and the vacuum chamber is open, substantially as described. 25th. In a pneumatic sheet registering mechanism, the combination with a vacuum chamber, a swinging pneumatic tube adapted to engage the lead edge of the sheet of paper, a valve connecting said swinging tube with said vacuum chamber, and mechanism for automatically opening and closing said valve, of a belt shifter and pneumatically operating mechanism connected with said swinging tube and with said belt shifter, and adapted to operate said belt shifter if the said swinging tube is open to permit access of air thereto when the connection with the vacuum chamber between said tube and the vacuum chamber is open, substantially as described. 26th. In a sheet feeding machine, the combination with pneumatic sheet registering mechanism, swinging pneumatic tubes adapted to engage the lead edge of a sheet of paper, a valve connecting said swinging pneumatic tubes with said vacuum chamber, and mechanism for automatically opening and closing said valve, of a machine stopping device, and pneumatically operating mechanism connected with said swinging tubes and with said machine stopping device, and adapted to operate said machine stopping device if either of said swinging tubes is open to permit access of air thereto when the connection between said tubes and said vacuum chamber is open, substantially as described. 27th. In a sheet feeding machine, the combination with sheet forwarding devices, of a pair of relatively adjustably jaws provided with knife edges upon their opposing surfaces, arranged in the path of the sheets and adapted to be adjusted to permit the passage of only one sheet between them, substantially as described. 28th. In a sheet feeding machine, the combination with sheet forwarding tapes, of a pair of relatively adjustable converging jaws provided with knife edges upon their opposing surfaces, arranged in the path of the sheets and adapted to be adjusted to permit the passage of only one sheet of paper between them and to stop the sheets in case two or more sheets are carried by said forwarding tapes, substantially as described. 29th. In a sheet feeding machine, the combination with sheet forwarding devices, of a shaft carried by the frame work, a sleeve adjustably mounted on said shaft, an arm 27 carried by said sleeve and extending upward and outward therefrom and having an upper knife edge, an arm 28

carried by said sleeve, a rod secured at one end in said arm, and an arm 30 adjustably mounted on said rod and extending downward and outward therefrom and having a lower knife edge, the knife edges of the arms 27 and 30 opposing each other and the outer ends of said arms being normally arranged at such distance apart as to permit but a single sheet of paper to pass freely between them, substantially as described.

**No. 63,760. Hose Machine.** (*Machine à boyau.*)



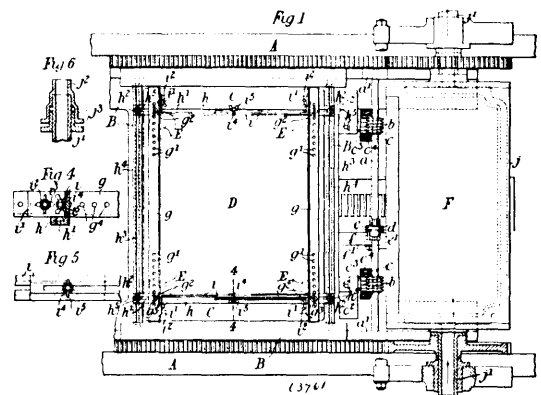
Samuel K. Wilson, assignee of Robert T. Burchell, both of Trenton, New Jersey, U.S.A., 1st September, 1899; 6 years. (Filed 7th December, 1898.)

*Claim.*—1st. In a long hose machine, the combination with a mandrel driving shaft provided with means whereby one end of a hose mandrel or pole may be secured thereto, of two parallel series of short rollers which support and carry said mandrel or pole, a rock shaft, a series of spring arms carried by said rock shaft, a third series of short rollers journaled to the said arms, and lying above and centrally of the supporting and carrying rollers, and means for regulating the tension or pressure of the said rollers, substantially as specified. 2nd. In a hose machine, the combination with a mandrel driving shaft provided with means whereby one end of a hose mandrel or pole may be secured thereto, of two parallel series of short rollers which support and carry said mandrel or pole, a rock shaft, a series of spring arms carried by said rock shaft, a third series of rollers carried by the said arms and lying above and centrally of the supporting and carrying rollers, means whereby said rollers may be put under tension, and properly positioned with respect to the mandrel before the latter commences to turn, and means for subsequently automatically bringing the driving devices for said mandrel into operation, substantially as specified. 3rd. In a long hose machine, the combination with a driving shaft for one end of the hose pole or mandrel, the mandrel carrying and supporting rollers, the series of short pressure rollers, the series of spring arms which carry the same, the rock shaft which carries the said arms and which also has a rigid arm, a strap or the like connected at one end to the said rigid arm, a rotary shaft having a loose disc thereon to which the other end of the said strap is connected, a friction device whereby said disc under certain conditions turns with the said shaft, and a clutch device for controlling the operation of the friction device, substantially as specified. 4th. In a hose machine, the combination with a series of pressure rollers, and with a rock shaft which carries the same, of a rotary shaft, a slidable clutch section thereon, an opposing loose clutch section having lugs thereon, an adjacent loose pulley having a boss, a friction strap on the said pulley and provided with lugs adapted to be engaged by the lugs of the adjacent clutch section, a band or strap connected at one end to the said boss, and at its opposite end to an arm of the said rock shaft, and means for actuating said sliding clutch section, substantially as specified. 5th. In a hose machine, the combination with a mandrel driving shaft formed in two sections, and a clutch coupling which connects the said sections, of a rock shaft, a series of pressure rollers carried thereby, means for actuating the said shaft to put said rollers under tension, and an automatic clutch operating device connected with said clutch coupling and operated by the movement of the said rock shaft to throw the said coupling into and out of operative engagement, substantially as specified. 6th. In a hose machine, the combination with the mandrel driving shaft formed in two sections, the clutch coupling which connects the two sections, the series of pressure rollers, the rock shaft which carries the said rollers, and means for actuating said shaft in both directions, of the clutch shifting rod, the spring for moving said rod in one direction, the lever operated by the backward movement of the rock shaft to move said rod in the opposite direction, the trip rod which normally holds the shifting rod against the action of its said spring, and an adjustable device carried by the said rock shaft for releasing the said trip rod, substantially as specified. 7th. In a hose machine, the combination with the series of pressure rollers,

and the rock shaft which carries the said rollers and which has also a rigid arm, and with a clutch coupling device which controls the operation of the mandrel driving shaft, of the automatic clutch shifting device, consisting of the shifting rod, a spring which moves the said rod in one direction, a trip device which holds the said rod against the action of the said spring, an adjustable device carried by the arm of said rock shaft and arranged to contact with the said trip device to release its engagement with the shifting rod, and a lever connected to the said arm of the rock shaft and arranged to move said shifting rod in the opposite direction, substantially as specified. 8th. In a long hose machine, using a mandrel which is connected to the machine at one end only, the two series of short yielding rollers which support and carry the said mandrel, a rock shaft, a series of spring arms carried by the said shaft, a short roller journaled to the free end portion of each of the said arms and adapted to bear on the mandrel, a mandrel driving shaft, means for actuating the rock shaft, to apply pressure to the said rollers, means for regulating the degree of pressure, and an automatically operating clutch device for throwing the mandrel driving shaft into and out of driving connection with the mandrel, substantially as specified. 9th. In a long hose machine, a mandrel driving shaft, a clutch device for controlling the operation of the same, the yielding supported carrying rollers for the mandrel, the series of short pressure rollers, means for putting said pressure rollers under tension, and means whereby the mandrel driving shaft remains inoperative until said rollers are properly tensioned and positioned, with respect to the mandrel, substantially as specified. 10th. In a hose machine, a mandrel driving shaft having means for holding one end of the mandrel, two parallel series of short holding and carrying rollers for the mandrel, a series of short rollers lying above and centrally of the holding and carrying rollers, spring arms which carry the upper series of rollers, and means for putting said arms under tension, said several series of rollers being arranged to break joints with each other, substantially as specified.

**No. 63,761. Polychrome Printing Machine.**

(*Machine polychrome à imprimer.*)



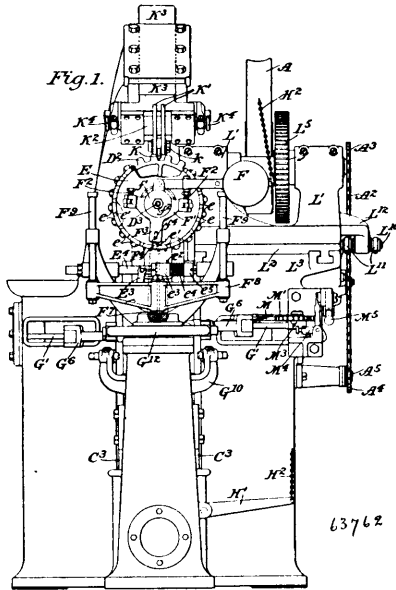
Henry de Monton, New Southgate, Middlesex, and The Simultaneous Colour Printing Syndicate, London, both in England, 5th September, 1899; 6 years. (Filed 18th February, 1899.)

*Claim.*—1st. In a polychrome printing machine, the combination with the main frame of a reciprocating box mounted therein, with a vertically movable colour block support carried by said box, adjustable guides secured to said box, and adjustable laterally and transversely thereof to engage colour blocks of different sizes, and automatic mechanism for elevating said support whereby the colour block will be forced upward between said adjustable guides, substantially as described. 2nd. In a polychrome printing machine, the combination with the main frame, of the colour block carrying box provided with parallel slotted portions adjacent to opposite sides of the same, the vertically movable colour block support mounted in said box, parallel slotted plates engaging said portions, of the box provided with securing devices engaging said slotted portions, a pair of parallel guide plates lying upon said slotted plates transversely thereto, and provided with vertical portions to engage the colour block and with adjusting devices engaging said slotted plates and a pair of longitudinally adjustable guide plates lying upon, secured to and disposed transversely of the first named guide plates, substantially as described. 3rd. In a polychrome printing machine, the combination with the main frame, of the colour block carrying box, provided with parallel slotted portions adjacent to opposite sides of the same, the vertically movable colour block support mounted in said box, parallel slotted plates engaging said portions, of the box and provided with securing devices engaging said slotted portions, a pair of parallel guide plates lying upon said slotted plates transversely thereto and provided with vertical portions to engage the colour block and with adjusting devices engaging said slotted plates and a pair of longitudinally adjustable guide plates having over lapping portions, and end portions perpendicular to the main portions, lying between said first named

guide plates and means for securing said end portions adjustably to the vertical portions of said first named guide plates, substantially as described.

**No. 63,762. Gear Cutting Machine.**

(Machine pour tailler les engrenages.)



Charles De Los Rice, Hartford, Connecticut, U.S.A., 5th September, 1899; 6 years. (Filed 21st November, 1898.)

*Claim.*—1st. A machine for cutting gear teeth, comprising means for supporting a master, and a gear blank to have a movement of rotation about a common axis and to have a lateral movement, a guide for contact with the master, and a weight connected to said master and gear blank to press the master against the guide with a rotative tendency. 2nd. A machine for cutting gear teeth, comprising means for supporting a master, and a gear blank to have a movement of rotation about a common axis and to have a lateral movement, a guide for contact with the master, a weight operatively connected with the master to produce one of said movements, and a cam operatively connected with the master to produce the other of said movements. 3rd. A machine for cutting gear teeth, comprising means for supporting a master, and a gear blank to rotate about a common axis and to move laterally, a guide plate the working surface of which is a true plane, and means to press the working surface of the master against the working surface of the guide plate with a rotative tendency. 4th. A machine for cutting gear teeth, comprising means for supporting a master, and a gear blank to rotate about a common axis and to move laterally, a guide plate the working surface of which is a true plane, means to press the working surface of the master against the working surface of the guide plate with a rotative tendency, and a cutter. 5th. A machine for cutting bevel gear teeth, comprising means for supporting a master and a gear blank to rotate about a common axis and to swing about an axis intersecting the first-named axis, a guide plate the working surface of which is a true plane, lying in the plane of said intersecting axis, and means to press the working surface of the master against the working surface of the guide plate with a rotative tendency. 6th. A machine for cutting bevel gear teeth comprising means for supporting a master and a gear blank to rotate about a common axis and to swing about an axis intersecting the first-named axis, a guide plate the working surface of which is a true plane lying in the plane of said intersecting axis, means to press the working surface of the master against the working surface of the guide plate with a rotative tendency, and a cutter. 7th. A machine for cutting bevel gear teeth, comprising a holder for a master, and gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master and a cutter. 8th. A machine for cutting bevel gear teeth, comprising a holder for a master and gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, means to press the master against the guide, and a cutter. 9th. A machine for cutting bevel gear teeth, comprising a holder for a master and gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact

for contact with the master, means to press the master in either direction against the guide, and a cutter. 10th. A machine for cutting bevel gear teeth, comprising a spindle to which the master and gear blank are secured, a carrier for said spindle and with which it is movable about an axis intersecting the axis of the spindle, a stationary guide for contact with the master, and a cutter with its working face in the same plane with the working face of the guide and said intersecting axis. 11th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle, a stationary guide for contact with the master, a cutter with its working face in the same plane with the working face of the guide and said intersecting axis, and a weight operatively connected to said spindle to impart a rotative tendency thereto. 12th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having the bearings for said spindle, a stationary guide for contact with the master, a cutter with its working face in the same plane with the working face of the guide and said intersecting axis, a step secured frictionally to said spindle, and a weight arranged to bear upon said step. 13th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle, a stationary side for contact with the master, a cutter with its working face in the same plane with the working face of the guide and said intersecting axis, a plate secured to said spindle and having two steps, one on each side of the axis of the spindle, and a weighted arm pivoted between the steps and arranged to bear on either step. 14th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle, a stationary guide for contact with the master, a cutter with its working face in the same plane with the working face of the guide and said intersecting axis, a step secured to said spindle, a weight arranged to bear upon said step, and means to lift the weight from the step. 15th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle, a stationary guide for contact with the master, a cutter with its working face in the same plane with the working face of the guide and said intersecting axis, a step secured to said spindle, a weight arranged to bear upon said step, and a cam and intermediate devices to lift the weight from the step. 16th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier for said spindle, eccentric bushings for said spindle mounted rotatably on said carrier, a stationary guide for contact with the master, and a cutter. 17th. A machine for cutting gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle, an adjustable friction shoe bearing on said spindle, a stationary guide for contact with the master, and a cutter. 18th. A machine for cutting bevel gear teeth, comprising a spindle in which the master and the gear blank are secured and rotated on its own axis, a carrier movable about an axis intersecting the axis of the spindle and having bearings for said spindle, a stationary guide for contact with the master, and a cutter. 19th. A machine for cutting bevel gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier movable about an axis intersecting the axis of the spindle and having bearings for the spindle, a stationary guide for contact with the master, a weight arranged to bear upon said spindle at one side of its axis, and a cutter. 20th. A machine for cutting bevel gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier movable about an axis intersecting the axis of the spindle and having bearings for the spindle, a stationary guide for contact with the master, a weight arranged to bear upon said spindle at one side of its axis, means to lift said weight, and a cutter. 21st. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, a work or master-controlling weight connected to said holder, indexing mechanism connected to said holder, and a connection between said weight and said indexing mechanism. 22nd. A machine for cutting gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, a work or master controlling weight frictionally connected to said holder, indexing mechanism connected to said holder, and a connection between said weight and said indexing mechanism. 23rd. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, a plate secured to the holder and having a step and an arm, a weight to bear upon said step, and indexing mechanism engaged by said arm. 24th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to said holder and having notches, a plate secured to the holder frictionally and having a step and an arm, a latch carried by said arm to engage said notches and a weight to bear upon said step. 25th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact



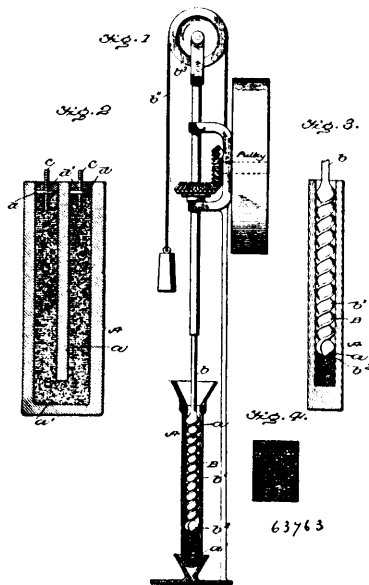
with the master, a cutter indexing mechanism connected to said holder, a radially movable projection connected with the indexing mechanism, and a stationary V-notch for engagement with said projection. 26th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, indexing mechanism connected to said holder, a radially movable projection connected with the indexing mechanism, and two stops forming between them a V-notch for engagement with said projection and adjustable upon a fixed support. 27th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder and having a series of notches, an arm secured frictionally to said holder, a radially movable latch carried by said arm to engage said notches and having a laterally projecting pin, and a stationary V-notch for engagement with said projecting pin. 28th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder, an actuator for said indexing wheel, and means to shift said actuator to cause it to engage different points on said wheel, offset circumferentially whereby the thickness of the cutter is compensated for in working upon opposite sides of the gear teeth. 19th. A machine for cutting gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder and having two sets of teeth or projections offset circumferentially, a plunger having a pin or projection to engage one or the other of said sets of teeth, means to reciprocate said plunger, and means to oscillate said plunger in one direction or the other, to bring its pin or projection into engagement with one or the other of said sets of teeth. 30th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a stationary guide for contact with the master, a cutter, an indexing wheel secured to the holder and having two sets of teeth or projections offset circumferentially, a plunger having a pin or projection to engage one or the other of said sets of teeth, a cam and connections to oscillate said plunger in one direction or the other to bring its pin or projection into engagement with one or the other of said sets of teeth, and means to reciprocate said plunger. 31st. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, and means to swing said carrier about said intersecting axis. 32nd. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, and a cam and intermediate connections to swing said carrier about said intersecting axis. 33rd. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, independent sets of devices to swing said carrier about its axis in opposite directions, and means to engage either of said sets of devices with said carrier. 34th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link to engage said carrier, a cam and operative connections between said link and cam, and means to engage and disengage said link with and from said carrier. 35th. A machine for cutting bevel gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link to engage said carrier, a cam and operative connections between said link and cam, a hand wheel, and a link connecting the first named link with the hand wheel. 36th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, independent sets of devices to swing said carrier about its axis in opposite directions, a hand wheel, and links connecting opposite sides of said hand wheel, with said independent sets of devices respectively. 37th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link having a slot to engage the carrier and a plunger pin in one side thereof and means to actuate said link to swing the carrier, and means to engage and disengage said link with and from said carrier. 38th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link having a tapering slot to engage a correspondingly shaped part of the carrier, means to engage and disengage said link with and from said carrier. 39th. A machine for cutting gear teeth, comprising a holder for a master

and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, and means to move said carrier. 40th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, and a cam against the periphery of which said carrier rests. 41st. A machine for cutting gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, a cam, and an adjustable step bearing for said carrier upon said cam. 42nd. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder movable in a direction substantially perpendicular to the axis of the holder to bring the blank into operative relation with the cutter, a cutter, a cam, a roller carrying block to bear upon said cam and having a thrust bearing for said carrier, and a guide to prevent rotative movement of said block. 43rd. A machine for cutting bevel gear teeth comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 44th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, means to press the master in either direction against the guide, a cutter, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 45th. A machine for cutting bevel gear teeth, comprising a spindle to which the master and the gear blank are secured and rotatable on its own axis, a carrier having bearings for said spindle and with which it is movable about an axis intersecting the axis of the spindle, a stationary guide for contact with the master, a cutter, and means to move said carrier in a direction substantially perpendicular to the axis of the spindle to bring the blank and the master into operative relation with the cutter and the guide respectively. 46th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a work controlling weight connected to said holder, a cutter, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 47th. A machine for cutting bevel gear teeth, comprising a holder for the master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cam and intermediate connections to swing said carrier about said intersecting axis, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 48th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, independent sets of devices to swing said carrier about its axis in opposite directions, means to engage either of said sets of devices with said carrier, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master into operative relation with the cutter and the guide respectively. 49th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a cam and operative connections between said link and cam, means to engage and disengage said link with and from said carrier, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 50th. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a cutter, a link to engage said carrier, a cam and operative connections between said link and cam, means to engage and disengage said link with and from said carrier, and means to move said carrier in a direction substantially perpendicular to the axis of the holder to bring the blank and the master gear into operative relation with the cutter and the guide respectively. 51st. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, means to swing said carrier



about said intersecting axis, and a belt shipper releasing device in operative relation with said means and progressively actuated thereby with a step by step movement whereby the belt shipper is released after the carrier has been swung a predetermined number of times. 52nd. A machine for cutting bevel gear teeth, comprising a holder for a master and a gear blank rotatable on its own axis, a carrier for said holder and with which it is movable about an axis intersecting the axis of the holder, a stationary guide for contact with the master, a means to swing said carrier about said intersecting axis, a belt shipper releasing device including a ratchet, and a pawl engaging said ratchet and operatively connected with said means. 53rd. A machine for cutting bevel gear teeth, comprising a holder for the master and a gear blank, a stationary guide for contact with the master on either side of the master tooth, means to press the master against the guide, a cutter, and means to shift the cutter sidewise in either direction to bring its working face into the same plane with the working face of the guide. 54th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank, a stationary guide for contact with the master on either side of the master tooth, means to press the master against the guide, a cutter, a cutter head upon which the cutter is mounted and with which it is movable sidewise, and means to shift the cutter head to bring the working face of the cutter into the same plane with the working face of the guide. 55th. A machine for cutting gear teeth comprising a holder for a master and a gear blank, a stationary guide for contact with the master on either side of the master gear tooth, means to press the master against the guide, a cutter, a cutter head upon which the cutter is mounted, and with which it is movable sidewise, and a weighted lever having a cam surface for co-operation with the bearing points on the cutter head. 56th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank, a stationary guide for contact with the master on either side of the master tooth, means to press the master against the guide, a cutter, a cutter head upon which the cutter is mounted and with which it is movable sidewise, and adjustable studs carried by the cutter head and inclined in opposite directions toward said cam surface to furnish bearing points therefor. 57th. A machine for cutting gear teeth, comprising a holder for a master and a gear blank, a stationary guide for contact with the master on either side of the master tooth, means to press the master against the guide, a cutter, a cutter head upon which the cutter is mounted and with which it is movable sidewise, adjustable stops to limit the movement of the cutter head, and means to shift the cutter head to bring the working face of the cutter into the same plane with the working face of the guide. 58th. A machine for cutting gear teeth, comprising a rotary cutter, a support for said cutter, a stationary guide, a movable master connected with the blank to be cut and engaging with said guide, and an inclined bed plate upon which the cutter support is adjustable in a plane inclined to the axis of the blank and master.

No. 63,763. Electrical Heater. (*Chauffeur électrique.*)

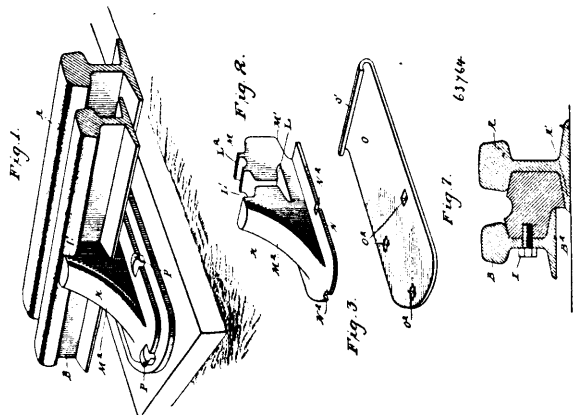


Richard Van Renselaer Sill, New York City, New York, U.S.A., 5th September, 1899; 6 years. (Filed 6th April, 1899.)

Claim.—1st. An electric heater or rheostat consisting of an outer shell, and a resistance filling therein in the form of a spiral layer of comminuted material with the convolutions in contact, substantially as set forth. 2nd. An electric heater or rheostat consisting of an

outer shell, a densely packed resistance filling therein in the form of a spiral layer of even thickness with the convolutions in contact, and electrodes in the ends of the shell, substantially as set forth.

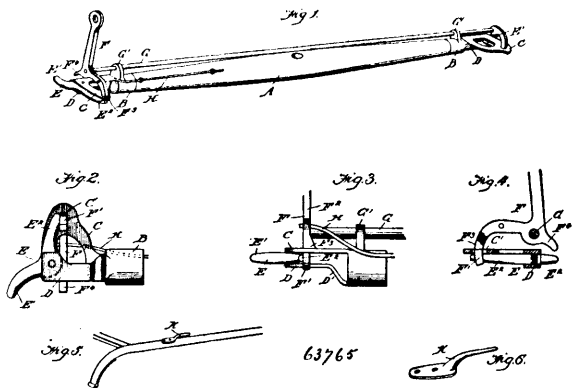
No. 63,764. Guard Rail Chair. (*Garde coussinet de rail.*)



David Crane, Rutland, Vermont, U.S.A., 5th September, 1899; 6 years. (Filed 10th May, 1899.)

Claim.—1st. The guard rail chair herein described, consisting of a base and a main body projecting upward therefrom, the outer edge of main body being shaped to fit the inner edge of the main rail, and an opening being formed transversely through the body to receive the guard rail, said opening being located to support the head of the guard rail on a level with the head of the main rail, and the flange of the guard rail above the flange of the main rail, substantially as described. 2nd. The combination with the timber, of a flat plate laid thereon, provided with spike openings and a hook-turned flange on its outer end, the main rail resting upon the clamp plate with the outer edge of its flange under the hook flange, a chair mounted upon the clamp plate having its outer end fitting against the web and between the head and flange of the main rail and provided with a transverse opening, the guard rail inserted in said opening and supported with its head on a level with the head of the main rail and its flange higher than the flange of the main rail, the base of the chair being provided with notches registering with the spike holes of the clamp plate, and spikes driven in the notches and holes in the timber, with their heads overlapping the sides and inner ends of the chair, substantially as described. 3rd. The herein described guard rail chair, provided with base the N, having notches N<sup>2</sup> in its sides and inner end, and the main body projecting upward from the base, shaped at its outer end to fit against the web and between the head and flange of the main rail and provided with a transverse opening L located above the level of the base and adapted to receive the guard rail, said opening being enlarged at its upper end L<sup>1</sup> to provide a seat for the head of the guard rail, and a groove L<sup>2</sup> being formed in the upper surface of the guard rail to accommodate the flanges of the wheels passing over the rail, substantially as described.

No. 63,765. Horse Detacher. (*Detalaye instantané.*)

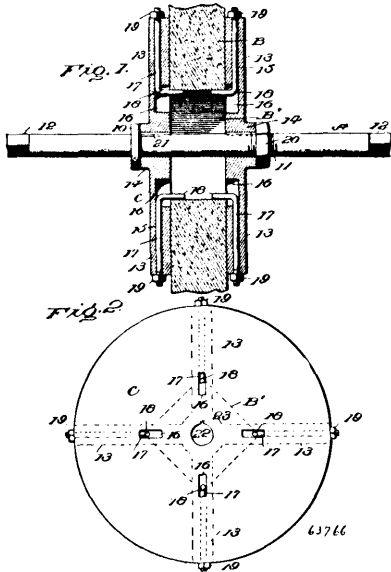


John T. Pierce, Breland, Louisiana, U.S.A., 5th September, 1899; 6 years. (Filed 10th May, 1899.)

Claim.—1st. In a device of the kind described, the combination with the ferrule, having plates at the end, of a whiffletree hook pivoted between said plates, the rock shaft journaled upon the ferrule, the catch lever carried by said shaft, said lever having its forward end passing through an opening in the top plate to engage the forward end of the whiffletree hook, and means for releasing

the lever, substantially as shown and described. 2nd. In a device of the kind described, the combination with the ferrule, having plates at the end, of a whiffletree hook pivoted between said plates, the rock shaft journalled upon the ferrule, the catch lever carried by said shaft, said lever having its forward end passing through an opening in the top plate to engage the forward end of the whiffletree, a stop near the forward end of lever and a stop arm at the rear end, the operating arm and the spring rod, all arranged and adapted to operate, substantially as shown and described.

**No. 63,766. Grindstone Mounting. (Montage de meule.)**



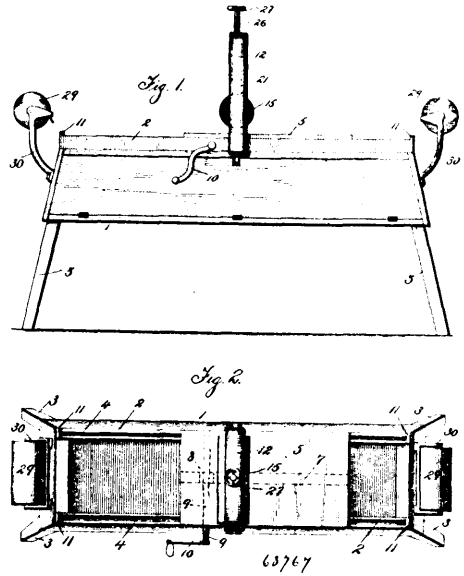
Fletcher Matthew Bird, Wenatchee, Washington, U.S.A., 5th September, 1899; 6 years. (Filed 23rd May, 1899.)

*Claim.*—1st. In mountings for grindstones, the combination with the shaft, plates adapted to be placed upon the shaft and secured thereon, and means for clamping said plates against the sides of the grindstones, of hangers applied to the plates and adjustable, and having portions projecting beyond the inner faces of said plates to enter the central opening of the grindstone, as and for the purpose set forth. 2nd. In mountings for grindstones, the combination with a shaft, and clamp plates adapted to be mounted upon the shaft and secured thereon against opposite sides of the grindstone, of bolts applied to the plates and having portions projecting beyond the inner faces of the plates to enter the central opening of the grindstone, and means for adjusting the bolts to effect a shifting of the grindstone, as and for the purpose set forth. 3rd. In mountings for grindstones, clamp plates having radially disposed slots opening through their inner sides, and bolts applied to the plates and having portions projecting through said slots and adapted to enter the eye or central opening of the grindstone, and means for adjusting the bolts, substantially as described. 4th. In mountings for grindstones, clamp plates provided with radially disposed openings and corresponding slots in communication with the said openings and extending through the inner faces of the plates, bolts slidably mounted in said openings and having bent portions projecting through the said slots and adapted to engage with the eye or central opening of the grindstone, and nuts applied to the threaded portions of the bolts for effecting an adjustment thereof, as and for the purpose set forth. 5th. In mountings for grindstones, clamp plates having radially disposed ribs formed with openings and corresponding slots, the latter communicating with the said openings and extending through the inner faces of the plates, bolts slidably mounted in said openings and having their inner ends bent and located in the said slots and adapted to engage with the eye or opening of the grindstone, and nuts applied to the outer threaded ends of the bolts and engaging with the edges of the flange for effecting an adjustment thereof, as and for the purpose set forth.

**No. 63,767. Proof Press. (Presse à éprouve.)**

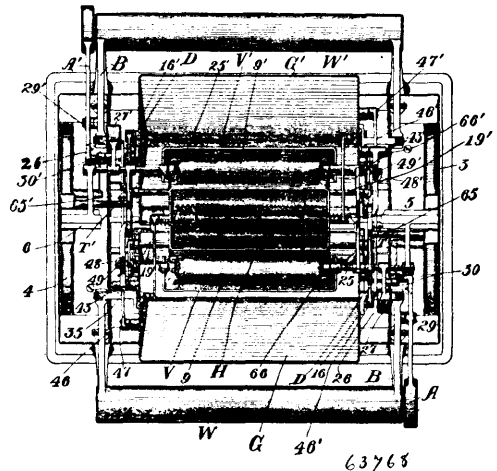
Francis Joseph Buote, Tignish, Prince Edward Island, Canada, 5th September, 1899; 6 years. (Filed 7th December, 1898.)

*Claim.*—A proof press, comprising a frame, a bed movable longitudinally thereof, a removable impression roller mounted in said



frame, a supplemental roller mounted to have a revoluble contact with said roller, and means for applying pressure to said rollers, substantially as described.

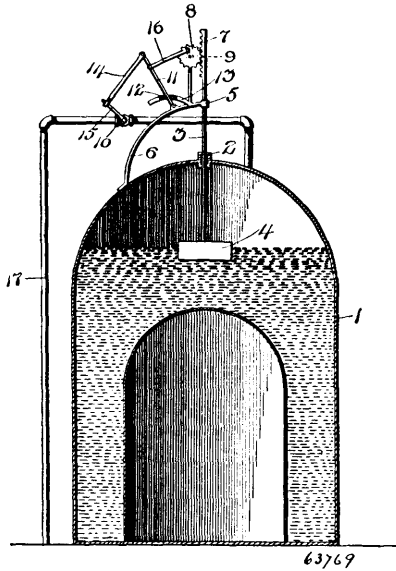
**No. 63,768. Weighing Machine. (Balance à bascule.)**



Francis H. Richards, New York City, New York, U.S.A., 5th September, 1899; 6 years. (Filed 6th February, 1899.)

*Claim.*—1st. The combination, with a series of weighing mechanisms each including a load receiver, of means, such as a chute adapted to be closed by a valve, for supplying each weighing mechanism with an overload of material, and means, such as a spout in communication with the load receiver and adapted to be closed by the valve, for removing material from one load receiver and for discharging it into another load receiver. 2nd. The combination, with a series of weighing mechanisms each including a load receiver, of means, such as a chute adapted to be closed by the valve, for supplying an overload to each load receiver, and means, such as a spout in communication with a load receiver, and adapted to be closed by a valve, for effecting the discharge of material from the first to another load receiver of the series and from another load receiver to the first load receiver of said series. 3rd. The combination, with primary and secondary weighing mechanisms each including a load receiver, of means, such as a chute adapted to be closed by a valve, for supplying an overload to each load receiver, and means, such as a spout in communication with the load receiver and adapted to be closed by a valve, for removing material from the primary load receiver and for discharging the same into the secondary load receiver, and for successively removing material from the secondary load receiver and for discharging the same into the primary load receiver.

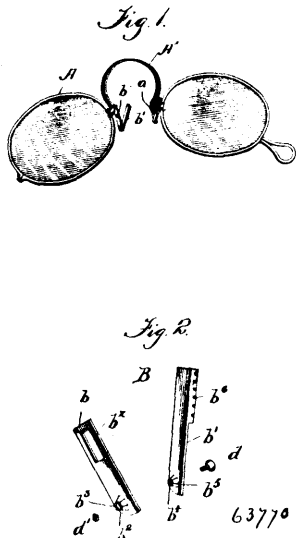
**No. 63,769. Water Feed Regulator for Boilers.**  
(*Regulateur d'alimentation d'eau pour chaudières.*)



William Henry Tobey, Tupperville, Ontario, Canada, 5th September, 1899; 6 years. (Filed 30th May, 1899.)

*Claim.*—The combination with a boiler, having a water inlet supply pipe and a valve located in said supply pipe, to regulate the passage of water into said boiler, of a float mounted to have a vertical movement within said boiler, a pinion mounted to have an operative connection with said float, whereby a vertical movement of said float will impart a rotary movement to said pinion, and connections operatively connected to said pinion and the handle of said valve, whereby the movement of said pinion will serve to impart an oscillatory movement to said handle, substantially as described.

**No. 63,770. Nose Guard for Eyeglasses.**  
(*Garde-nez pour lunettes.*)

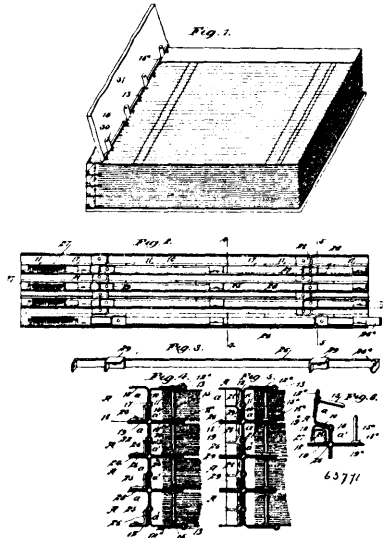


Samuel S. Grant, Montreal, Quebec, Canada, 5th September, 1899; 6 years. (Filed 6th April, 1899.)

*Claim.*—1st. A nose guard for eyeglasses, comprising two members, one of which members is adjustably secured to the frame of the eyeglass at its upper portion and having at its lower portion a perforated concave depression, radial grooves arranged upon the interior of said depression, the other of said members being provided upon its lower portion with a convex projection or lug, a series of radial convolutions or ribs arranged upon the exterior of said projection or lug and adapted to coincide with said convolu-

tions or grooves of the concave depression of the first named member, and a binding bolt adapted to pass through the said perforations and secure the members together in their adjusted position, substantially as described.

**No. 63,771. Temporary Binder.** (*Reliure temporaire.*)



Charles Theodore Rosenthal, Batesville, County of Independence Arkansas, U.S.A., 5th September, 1899; 6 years. (Filed 12th May, 1899.)

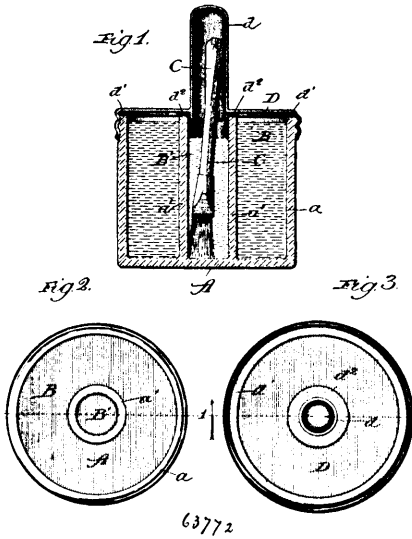
*Claim.*—1st. In a temporary binder, a section consisting of two parts having a hinged connection, each part comprising a horizontal and a vertical member, the vertical members being pivotally connected, fastening devices for the leaves secured to the horizontal portions of each of said parts, a spring-controlled slide provided with contact plates mounted upon the vertical member of one of the parts, and contact plates secured to the vertical member of the opposing part, the contact plates attached to the vertical member and those on the slide being adapted to normally engage, whereby the parts of the sections of the binder will be normally held closed, as specified. 2nd. In the construction of temporary binders, a section comprising an upper part and a lower part, each constructed of sheet metal bent upon itself to form horizontal plates extending in opposite directions, a twin web on each part and knuckles on the webs, a pintle passed through the knuckles on the web of both of the parts, pins secured to the horizontal members of said parts, the pins being alternately arranged and extending in opposite directions, a spring-controlled slide mounted upon the outer face of the web of the lower part of the section, contact plates carried by the said slide, and contact plates located upon the outer face of the web of the upper part, the contact plates of the web portion of the section being arranged to normally engage with the corresponding plates of the slide, for the purpose set forth. 3rd. In a temporary binder, the combination of two sections, each comprising a horizontal and a vertical member, and the sections having their vertical members pivotally connected, a slide mounted on one of said sections and having a part forming a shoulder, a spring engaging said slide to hold the same in a certain normal position, and means secured to the other section, such means also forming a shoulder adapted normally to engage with the shoulder on the slide.

**No. 63,372. Mucilage Holder.** (*Porte mucilage.*)

William Henry Redington, Chicago, Illinois, U.S.A., 5th September, 1899; 6 years. (Filed 9th May, 1899.)

*Claim.*—1st. In an apparatus of the class described, the combination of a holder portion provided with an annular paste chamber and a water chamber concentric therewith, and a cover adapted to seal both chambers independently and hold a brush in the water chamber, the space between said chambers being sufficient to permit the brush to be dipped into either at will, substantially as described. 2nd. In an apparatus of the class described, the combination of a holder portion provided with an annular paste chamber and a central water chamber, and a cover adapted to seal both chambers independently provided with a vertical chamber in line with the water chamber to hold the handle of a brush and keep the brush in the water chamber, substantially as described. 3rd. In an apparatus of the class described, the combination of a holder portion provided with an annular paste chamber and a central water chamber, a cover adapted to seal both chambers provided with a vertical chamber in

line with the water chamber to hold the handle of a brush and keep the brush in the water chamber, and rings of suitable material

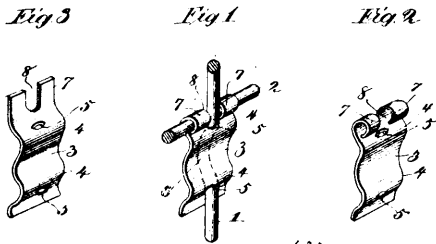


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interposed between the cover and the walls forming the annular and central chambers to hermetically seal the same, substantially as described.

No. 63,773. Fence Stay and Fastener.

(Etai et attache pour clotures.)



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Noble B. Leslie, South Haven, Michigan, U.S.A., 5th September, 1899; 6 years. (Filed 6th May, 1896.)

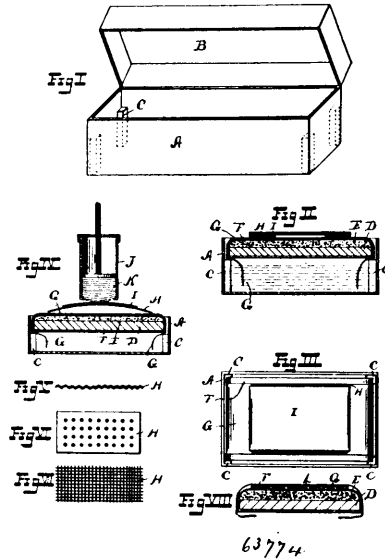
Claim.—1st. In a fence stay, the combination with the crimped wire, of metallic fasteners secured thereon at suitable intervals and provided with extended slotted portions whereby the line wires are secured thereto, substantially as set forth. 2nd. In a fence stay, the combination with a wire crimped at predetermined intervals, of a metallic stay bent twice at right angles and pierced for the introduction of the wire, and provided with an extended upper portion slotted, as and for the purpose set forth. A fastener for a wire crossing consisting of the combination with a body portion bent twice at right angles and pierced for the insertion of one wire in both transverse portions, of an extended upper portion provided with a vertical slot, substantially as set forth.

No. 63,774. Moistening Device. (Appareil à humecter.)

Julius John Karges, Kansas City, Missouri, U.S.A., 5th September, 1899; 6 years. (Filed 4th May, 1899.)

Claim.—1st. In a moistening device, the combination with a cushioned pad, of a non-absorbent covering for the pad, and a filamentous device of absorbent material upon said covering, there being a liquid supply below the pad with which the filamentous device has communication, substantially as described. 2nd. In a moistening device, the combination with a cushioned pad, of a non-absorbent covering for the pad, and a cloth strip upon the covering and communicating with the liquid supply, substantially as described. 3rd. In a moistening device, the combination with a suitable receptacle adapted to contain a liquid supply, of a cushioned support having a non-absorbent covering and located within the receptacle, and a filamentous device upon said support and extending below the same, substantially as described. 4th. In a moistening device, the combination with a suitable receptacle adapted to contain a liquid supply, of a cushioned support having a non-absorbent covering and located within the receptacle, and a cloth strip upon the support and extending below the same, substantially as described. 5th. In a moistening device, the combination with a support of

non-absorbent material, of a filamentous absorbent covering for the support, a non-absorbent plate upon the said covering, a filamentous

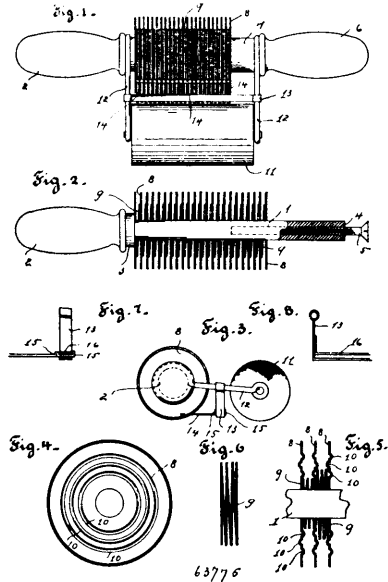


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covering for the said plate, and an absorbent connection between the two coverings, substantially as described. 6th. In a moistening device, the combination with a support of non-absorbent material, of a filamentous absorbent covering for the support, a non-absorbent plate upon the said covering, a filamentous covering for the said plate, and means for conveying moisture from one plate to the other, substantially as described. 7th. In a moistening device, the combination with a non-absorbent support, of an absorbent covering for the same, a plate having a formed upper surface upon the said covering, an absorbent covering for the said plate, and means for conveying moisture from one covering to the other, substantially as described. 8th. In a moistening device, the combination with a non-absorbent support, of an absorbent covering for the same, a curved plate upon the said covering, an absorbent covering for the said plate, and means for conveying moisture from one covering to the other, substantially as described.

No. 63,775. Dough and Vegetable Cutter.

(Coupe-pâte et végétaux.)



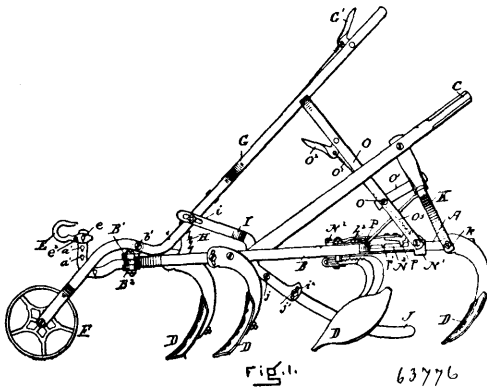
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Eulalia V. Brake, Toledo, Ohio, U.S.A., 5th September, 1899; 6 years. (Filed 4th May, 1899.)

Claim.—In a dough and vegetable cutter, an arbor, having a handle, integral therewith of an intermediate shoulder, a screw-threaded orifice formed upon one end of the arbor adapted to receive a screw inserted through the opposite handle, a plurality of discs

movably mounted upon the arbor, springs interposed between the same, a shoulder formed upon the detachable handle, brackets pivotally mounted upon the shoulders formed upon the handles, a roller journalled in the outer end of the brackets and a separator pivotally supported from the brackets, comprising a plurality of prongs movably held between the guides to compensate for the adjustment of the discs.

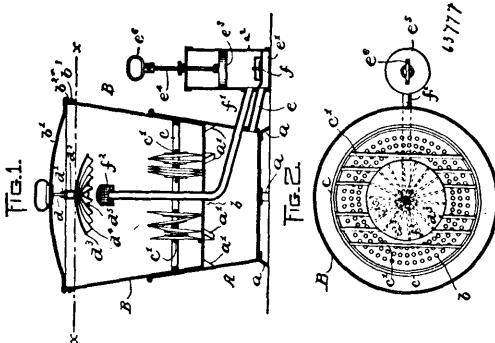
No. 63,776. Cultivator. (Cultivateur.)



Samuel L. Allen, Moorestown, New Jersey, U.S.A., 5th September 1899; 6 years. (Filed 18th March, 1899.)

Claim.—1st. In a cultivator, a struck-up steel clevis provided at its rear end with a slot, and slotted pin hole in combination with a weighted and lugged pin, all operated and arranged substantially as described. 2nd. In a cultivator, a depth regulator consisting of the pivoted hand lever G connected to a wheel, in combination with the lever I, pivoted near the centre of the middle bar, each lever having suitable ground terminations and connected to the runner whereby the depth of the cultivator is regulated fore and aft simultaneously with one lever, substantially as described. 3rd. In a cultivator, a pivoted brace Q, in combination with a handle supporting brace and expander bars, the lower end of said brace Q being pivoted at the centre of motion of said expander bars, whereby the said handles and expander bars are suitably supported, and at the same time allowed freedom of motion, all arranged and operated, substantially as described. 4th. In a cultivator, a truck N, having a latch spring P, in combination with the notched central bar A, and operating lever O, all arranged and operated, substantially as described. 5th. In a cultivator, a triangular bar brace K, attached at its lower side to the central bar, in combination with the laterally sliding handle supporting brace L whereby the handles are firmly supported, and permitted to be swung from one side or the other of the centre, all arranged and operated, substantially as described. 6th. In a cultivator, the combination with the central notch bearing bar, a truck carrying a spring with lug to engage the notches and hinged laterally adjustable side bars, of knuckle joint forming expander bars, and a lever operated sliding truck on said central bar, substantially as and for the purposes described. 7th. In a cultivator, a triangular fixed brace K, provided with a sliding handle supporting brace L, in combination with the braces O, pivoted at their upper ends to the said triangular brace K, and at their lower ends to the expander bars M, at their centres of motion, whereby the said handles are firmly braced horizontally, and vertically, at all positions of the said expander bars, all arranged and operated, substantially as described.

No. 63,777. Dish Cleaner. (Machine à laver la vaisselle.)

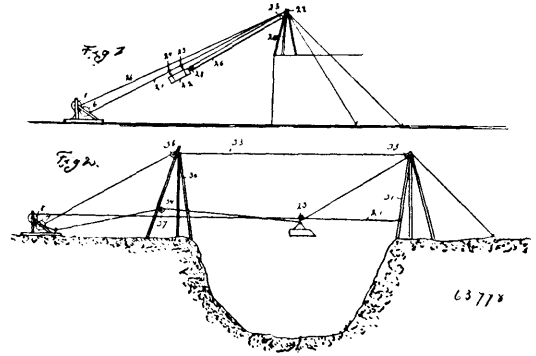


Edgar Shaw, Swampscott, Massachusetts, U.S.A., 5th September, 1899; 6 years. (Filed 2nd May, 1899)

Claim.—1st In a dish washing apparatus, a reservoir, a dish pan sustained therein revolubly and having means for holding dishes on

edge, combined with the cover, and the spreader supported thereby, a pump having outlet and discharge pipes, the said discharge pipe being extended through the said reservoir and centrally through the bottom of said dish pan and provided with a nozzle, the dish pan being revoluble about the said discharge pipe, substantially as described. 2nd. The reservoir A having rests a', the dish pan B inserted in said reservoir and sustained by said rests, said dish pan having a perforated bottom and a closed cover, and having means for sustaining plates on edge, combined with a spreader suspended from the lower side of said cover, a pump located outside the reservoir and pan having an inlet e, and a discharge pipe f' extended through the reservoir and centrally up into the dish pan and provided with a nozzle, substantially as described.

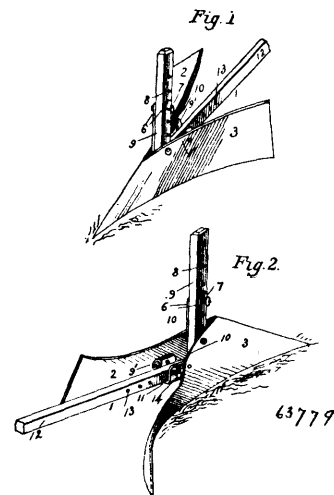
No. 63,778. Hoisting Apparatus. (Ascenseur.)



Robert Johnston, River Falls, Wisconsin, U.S.A., 5th September 1899; 6 years. (Filed 26th April, 1899.)

Claim.—The combination with a mast or other supporting device, of a power mechanism embracing independent winding shafts and a power shaft common to both shafts and with shifting mechanism, a track cable attached at one end to the mast or supporting device and at its other end to one of the winding shafts, a carriage, and a haulage cable attached at one end to the supporting device, and connected to the other winding shaft, substantially as described.

No. 63,779. Plough. (Charrue.)

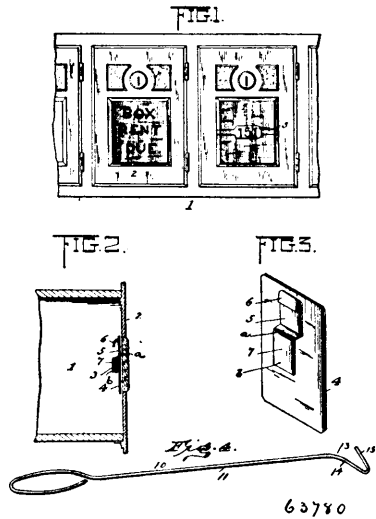


John W. Sargeant, Elmwood, Nebraska, 5th September, 1899; 6 years. (Filed 21st April, 1899.)

Claim.—In a device of the character described, the combination with a runner and runner post or standard disposed at right angles and provided respectively with a series of apertures, of a mould-board provided with a pair of parallel standards designed to embrace the runner post and provided with securing mechanism, and a strap connecting the diverging ends of the mouldboards, and provided with a loop for the reception of the runner, and a fastening pin securing the runner therein, substantially as specified.

No. 63,780. Indicator for Post Office Boxes.

(Indicateur pour boites à lettres.)

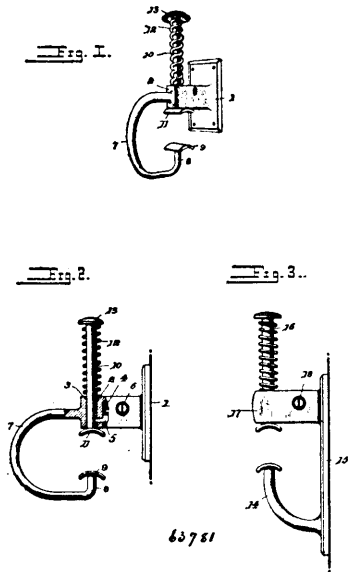


63780

Wesley John Williams, Defiance, Iowa, U.S.A., 5th September, 1899; 6 years. (Filed 4th April, 1899.)

Claim.—An indicating sign for post office boxes adapted to be supported on the cross strip or bar on the interior of the box so that the notice thereon will be visible through the glass panel, and comprising an imperforate plate bearing a suitable notice on its inner face with a central vertical retaining strip, said strip being secured at its centre to the plate and having its upper end bent to form a down turned hook adapted to engage an inserting and supporting tool, substantially as described, and its lower end offset or projected outwardly to form a suspending arm or hook having a right angled shoulder to rest on the cross bar and support the plate, and a vertical flange or web standing out from the plate so that it may be fitted down on said cross bar without pressure, as and for the purpose set forth.

No. 63,781. Garment Hook. (Crochet pour vêtements.)



63781

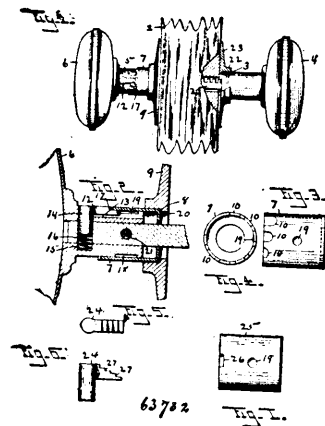
William P. McIlyar, Cambridge, Ohio, U.S.A., 5th September, 1899; 6 years. (Filed 4th April, 1899.)

Claim.—1st. A supporting hook and lock therefor comprising a projection having a vertical opening, an arm rigidly connected with one end of the projection and terminating in a head on a line with the said vertical opening, a presser bar located within the opening and having notches, and a lock carried by the projection and having its bolt arranged to engage the notches of the presser bar, substantially as described. 2nd. In a supporting hook and locking device therefor, the combination with a projection carrying an arm which

is curved downwardly and inwardly terminating in a head, the projection having a vertical opening, a presser bar movable within the vertical opening of the projection and having a foot which engages the head of the hook, a spring for normally raising the presser bar, and a lock carried by the projection so that the bolt thereof will engage the notches in the presser bar, substantially as shown and for the purpose set forth. 3rd. In a supporting hook and lock therefor, the combination with a wall plate having means for attaching the same in place, a projection extending from the wall plate and carrying an arm which is curved downwardly and inwardly terminating in a head, a presser bar located within a vertical opening in the projection and having a foot adapted to engage the head of the hook, said presser bar having notches therein, a helical spring encircling the presser bar and interposed between the head thereon and the projection by which the presser bar is supported, together with a lock supported by said projection and having a bolt which engages notches in the presser bar, substantially as shown and for the purpose set forth.

No. 63,782. Knob Attachment.

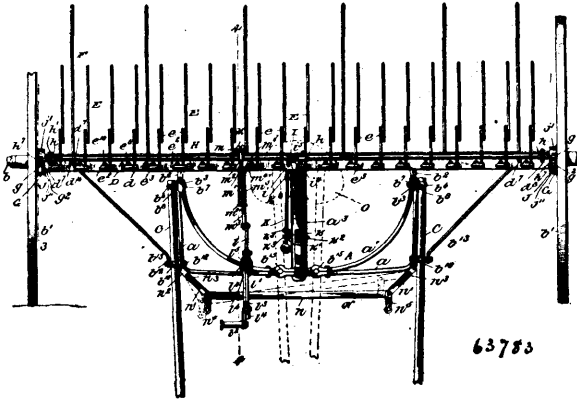
(Attache de bouton de porte.)



63782

Henry J. P. Whipple, New Haven, Connecticut, U.S.A., 5th September, 1899; 6 years. (Filed 4th April, 1899.)

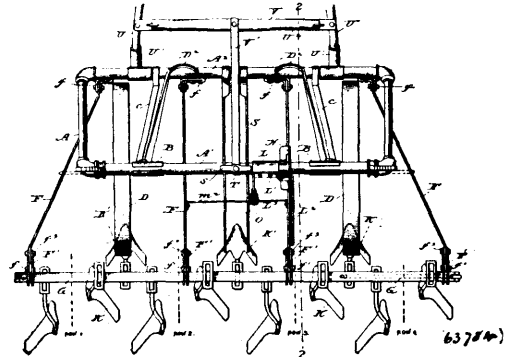
Claim.—1st. The combination with a door knob hook, of a sleeve mounted upon said neck and adapted for a free sliding movement longitudinally of the latter, and a detent upon said neck adapted to make contact with said sleeve to limit its movement, one of said two contacting parts being provided with a plurality of contact surfaces located at varying distances from the inner end of the neck, to hold the sleeve in different positions upon the latter, substantially as described. 2nd. The combination with a door knob neck, of a sleeve mounted upon said neck and projecting at its inner end beyond the end of the latter, said sleeve being free to move longitudinally upon the neck and being provided with a plurality of engaging surfaces located at varying distances from its inner end, and a detent upon the neck adapted to engage said surfaces on the sleeve interchangeably, substantially as and for the purpose described. 3rd. The combination with the neck of a door knob, of a sleeve loosely mounted upon said neck and projecting at its inner end beyond the end of the latter, said sleeve having in its outer end a series of notches or depressions of a progressively varying depth, and a spring actuated detent radially movable upon the neck and adapted in its outermost position, to engage the notch or depressions in said sleeve, substantially as described. 4th. The combination with the neck of a door knob, having located thereon a radially movable spring actuated detent, the outer face of which is shouldered as described, of a sleeve loosely mounted upon said neck and overlapping at its outer end said detent, said sleeve having in its said outer end a series of notches or depressions of varying depth to receive the shoulder of the detent, substantially as set forth. 5th. The combination with a door knob neck provided with a circumferential groove or recess and with a longitudinal notch or recess leading therefrom to the end of said neck, of a detent having a stem or shank which enters a transverse socket in said neck and having its outer face provided with a shoulder as described, a spring located in said socket and exerting outward pressure against the stem of said detent, and a sleeve loosely mounted upon said neck and overlapping said detent at one end, said sleeve being provided with an internal projection to enter the circumferential groove in the neck and having at the end thereof which overlaps said detent, a series of notches or depressions of varying depth to receive the shoulder on the latter, substantially as described. 6th. The combination with the knob neck 5, having the recess 13 and socket 15, of the detent 12 having the stem 14 which enters said socket and the shoulder 17, spring 16, and sleeve 7 projecting at its inner end beyond the end of said neck and having in its outer end the series of notches 10 of varying depth, substantially as described.

**No. 63,783. Horse Hay Rake. (Rateau à cheval.)**

Marquis J. Todd, Buffalo, New York, U.S.A., 5th September, 1899; 6 years. (Filed 18th March, 1899.)

*Claim.*—1st. In a horse hay rake, the combination with the draft frame and the carrying wheels having short axles, of the clearer head supported at its ends by said axles, the hinging arms connected to said clearer head having extensions provided with openings and recessed sides, the draft frame having corresponding bars fitted in said recessed sides, the eye bolts binding said bars to said extensions, the shafts connected by said eye bolts to said draft frame, and the rake head pivotally supported by said hinging arms, substantially as set forth. 2nd. The combination with the carrying wheels having short axles and inner ratchet wheels, of throw-off plates mounted on said axles and having lower flanges, the clearer head formed of a bar of L-shape in cross section, means for adjustably attaching the horizontal portions of said L-bar to said flanges, and the rake head pivoted to said clearer head and carrying pawls at its ends, as and for the purpose set forth. 3rd. The combination with the carrying wheels having short axles and inner ratchet wheels, of the throw-off plates pivotally mounted on said axles and having lower slotted flanges, the upper surfaces of which are serrated, the clearer head having holes in its ends, nutted bolts for attaching said ends to said flanges of said plates, and serrated washers interposed between said flanges and said clearer head and through which said nutted bolts are passed, and the pivoted rake head carrying pawls, as and for the purpose set forth. 4th. The combination with the carrying wheels having ratchet wheels secured thereto, of the pivoted rake head formed of a bar L-shape in cross section, a spring held trip shaft mounted on the normally vertical portion of said bar, pawls on said shaft for engaging said ratchet wheels, a trip arm attached to said shaft and extended through a slot in the normally horizontal portion of said L-bar, and the trip lever connected to said trip arm beneath said L-bar, substantially as set forth. 5th. The combination with the carrying wheels having ratchet wheels secured thereto, of the pivoted rake head having a transverse slot therein, the trip shaft mounted on said rake head and having pawls on its ends, the trip arm rigid on said trip shaft projected downward through said slot, the spring for normally holding said pawls out of engagement with said ratchet wheels, and the trip lever pivoted beneath said rake head, said slot limiting the movement of said trip arm, substantially as set forth. 6th. The combination with the draft frame and the carrying wheels having ratchet wheels, of the pivoted rake head, a trip shaft thereon having pawls for engaging said ratchet wheels, the throw-off plates, the trip arm on said shaft, the trip lever pivoted on said draft frame and having a stop or stops for engaging said rake head when the latter is elevated and the pawls have been disengaged from the ratchet wheels, substantially as set forth. 7th. The combination with the draft frame and the carrying wheels having ratchet wheels, of the pivoted rake head, the trip shaft thereon having pawls for engaging said ratchet wheels, the throw-off plates, the trip arm on said shaft, the trip lever pivoted on said draft frame and having a yielding stop or stops for engaging said rake head when the latter is elevated and the pawls have been disengaged from the ratchet wheels, substantially as set forth. 8th. The combination with the draft frame and the carrying wheels having ratchet wheels, of the pivoted rake head, the trip shaft thereon having pawls for engaging said ratchet wheels, the throw-off plates, the trip arm on said shaft, the trip lever pivoted on said draft frame and having a pivoted arm provided with a series of shoulders, and a spring acting on said arm, substantially as set forth. 9th. The combination with the draft frame and the carrying wheels having ratchet wheels, of the rake head having a slot therein, the trip shaft, the pawls thereon, the trip arm on said shaft extending through said slot, the trip lever connected thereto, and the rock shaft mounted on said draft frame, and on which said trip lever is pivoted, as set forth. 10th. The combination with the draft frame and the carrying wheels having ratchet wheels, of the rake head having a slot therein, the trip shaft, the pawls thereon, the trip arm on said shaft extending through said slot, the trip lever

connected thereto, and the angular rock shaft having its lower member mounted in said draft frame and provided with an extension forming a stop for said trip lever which is pivoted on said rock shaft, substantially as set forth. 11th. The combination with the draft frame, of the pivoted rake head, the rake arm rigidly attached thereto, the retaining lever pivoted upon the draft frame and having an extensible or telescopic front arm provided with a side extension or treadle, whereby said lever is capable of being operated by hand or foot, and the extensible spring held rod having a yielding connection with the rear end of said lever and said rake arm, substantially as set forth. 12th. The combination with the draft frame, of a draft equalizer consisting of a flexible bar having normally divergent ends to said frame, such securing points being a less distance apart than the entire length of said bar, and draft hooks secured to the said length of said bar, and draft hooks secured to the said flexible bar near the ends thereof, as and for the purpose set forth. 13th. The combination with the draft frame, of a draft equalizer consisting of one long member and two normally divergent end members loosely secured thereto, said end members being loosely attached at their free ends to the draft frame at points a less distance apart than the entire length of said members, and draft hooks secured to said members at the point of union of said divergent end members, substantially as set forth.

**No. 63,784. Cultivator. (Cultivateur.)**

Samuel L. Allen, Morristown, New Jersey, U.S.A., 5th September 1899; 6 years. (Filed 18th March, 1899.)

*Claim.*—1st. In an agricultural implement, the combination of a supporting frame, a series of tool carrying bars carried thereby, and means for reciprocating said bars to regulate the distance between the teeth, substantially as described. 2nd. In an agricultural implement, the combination of a main frame, a tool carrying frame hinged thereto, a series of tool bars adjustably mounted in said frame, and means for imparting opposite longitudinal movement to said tool bars. 3rd. The combination with the supporting frame, a tool carrying frame hinged thereto, triple tool bars carried by said frame, and means for effecting the lateral adjustment of said tool bars, to regulate the distance between the teeth, substantially as described. 4th. The combination with a main supporting frame, of a tool carrying frame, triple tool bars supported in said tool carrying frame adapted to carry the teeth, means for imparting opposite longitudinal movement to the upper and lower tool bars, and means for holding the intermediate bar stationary, substantially as described. 5th. The combination of the main supporting frame, a tool carrying frame hinged thereto, triple tool bars supported in said tool carrying frame, teeth adjustably secured on said bars in such position that the lateral movement of the upper bar in one direction and a similar movement of the lower bar in the opposite direction will increase or diminish the distances between said teeth, and means for imparting such movement to the said bars simultaneously, substantially as described. 6th. The combination of a main supporting frame, a tool carrying frame hinged thereto, multiple tool bars supported in said tool carrying frame, means for holding an intermediate tool bar stationary and a lever for shifting upper and lower tool bars simultaneously in opposite directions, substantially as described. 7th. The combination in an agricultural implement, of a main supporting frame, a tool carrying frame hinged thereto, triple transverse bars supported in said frame, means for holding the intermediate bar rigid with its carrying frame, a lever pivoted to one end of the intermediate bar, connecting rods fulcrumed to the lever above and below its pivotal point respectively, the free ends of which are secured to the upper and lower tool bars respectively, substantially as described. 8th. The combination in an agricultural implement, of a main supporting frame, a tool carrying frame hinged thereto, triple transverse bars supported in said frame, means for holding the intermediate bar rigid with its carrying frame, a lever pivoted to one end of the intermediate bar, connecting rods fulcrumed to the lever above and below its pivotal point respectively, the free ends of which are secured to the upper and lower tool bars respectively, and means for locking said lever in its adjustable position, substantially as described. 9th. The combina-



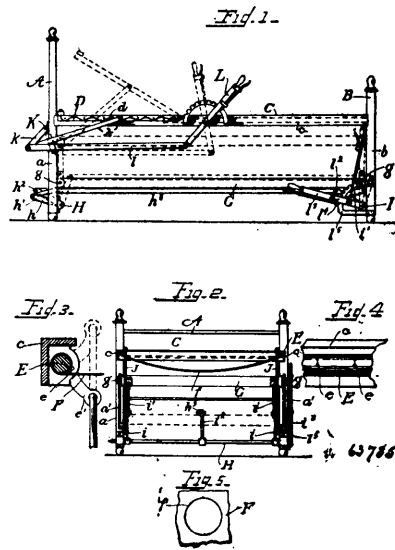
tion of the main frame, the tool carrying frame hinged thereto, triple tool bars supported in said carrying frame, means for holding the intermediate tool bar stationary, a lever pivoted to one end of the stationary bar, and connections between the said lever and the upper and lower tool bars whereby a lateral adjustment to the same in opposite directions may be effected simultaneously, substantially as described. 10th. The combination of the main frame, the tool carrying frame hinged thereto, triple bars supported in said carrying frame, means for holding the intermediate tool bar stationary, a lever pivoted to one end of the stationary bar, and connections between the said lever and the upper and lower tool bars whereby a lateral adjustment to the same in opposite directions may be effected simultaneously, and means for locking said bars in their adjusted positions, substantially as described. 11th. The combination of the main supporting frame, a supplemental frame hinged thereto, tripple tool bars carried by said supplemental frame, means for holding the intermediate bar stationary, a lever pivoted to the said stationary bar at one end, connections between the said lever and the upper and lower bars respectively whereby they may be shifted in opposite directions upon the operation of said lever, and a segmental rack and spring pawl for retaining said bars in their adjusted positions, substantially as described. 12th. In an agricultural implement, the combination of a main supporting frame, a supplemental frame hinged thereto, supporting plates carried by said supplemental frame for the support of tool bars, and means for adjusting said supporting plates to change the pitch of the tool, substantially as described. 13th. The combination of a main supporting frame, a supplemental frame hinged thereto, supporting plates pivoted to the ends of said supplemental frame, openings provided in said supporting plates for the reception and support of the tool bars, and means for adjusting the same to change the pitch of the teeth, substantially as described. 14th. The combination of the main supporting frame, a tool carrying frame comprising a series of rearwardly extending bars hinged to the main frame at their forward ends, twin plates embracing the other ends of said bars, means for adjusting the said plates for changing the angles of the tool bars, and transversely arranged tool bars carried by the said twin plates, substantially as described. 15th. A frame for agricultural implements consisting of a rectangular frame arranged at an angle to the vertical plane of the machine, suitable draft bars secured to the forward downwardly disposed bar of said frame, pivoted supporting wheels adjustably mounded on the upper forward bar of said frame, brace bars connecting the wheel standards and the front frame bar, a supplemental tool carrying frame hinged to said main frame and transversely arranged tool bars carried by said supplemental frame, substantially as described. 16th. In an agricultural implement, a main supporting frame, a tool carrying frame hinged thereto, an operating lever loosely mounted on the main frame, a segmental toothed rack rigidly secured to said main frame, adapted to be engaged by the operating lever, a slotted bar swivelled to the tool carrying frame, a pair of bars embracing the slotted bar on both sides thereof and pivoted at their ends to an arm on the operating lever, a collar rigidly secured to the central bar at its base, a collar rigidly secured to the outer bars by means of a bolt which passes through the slot of the central bar, and a tension spring interposed between the two collars, whereby a direct but yielding pressure may be exerted on the tool carrying frame, substantially as described. 17th. The combination with the main supporting frame, of a tool carrying frame hinged thereto, a toothed segment and operating lever carried by the main frame, a bar M<sup>1</sup>, swivelled at its lower end to the tool carrying frame, a short slot M<sup>2</sup>, located in about the centre of said bar, a slot M<sup>2</sup>, formed in the upper part of said bar, a pair of bars M, embracing the bar M<sup>1</sup>, on each side thereof and pivoted at their upper ends to an arm L<sup>1</sup>, of the operating lever, a bolt m<sup>2</sup>, connecting the bars M, and passing through the slot M<sup>2</sup>, a collar m<sup>3</sup>, a bolt m<sup>4</sup>, connecting said collar to the bars M, and passing through the short slot M<sup>2</sup>, a collar M<sup>6</sup>, carried by the lower part of bar M<sup>1</sup>, and a coiled spring O, interposed between the two collars, M<sup>5</sup>, M<sup>6</sup>, substantially as described and for the purpose stated. 18th. The combination of a main supporting frame, a tool carrying frame hinged thereto, mechanism connecting the main frame and tool carrying frame for raising and lowering same and exerting downward pressure on the centre of the tool carrying frame, the hinged supporting bars, F, at the extreme ends of the said tool supporting frame, lifting lever, O, provided with a ratchet and pawl mechanism, secured to the frame A, at each end thereof, and the chains R, connected with the lifting levers Q, and the bars F, of the tool carrying frame, substantially as described and for the purpose stated.

**No. 63,785. Invalid's Bedstead. (Lit d'invalidé.)**

George E. Homan, Williamsport, Pennsylvania, U.S.A., 5th September, 1899; 6 years. (Filed 17th March, 1899.)

*Claim.*—1st. In an invalid bed, the combination with the upper frame, of devices for holding a supporting sheet, adjusting mechanism for said holding devices, for tightening and loosening said sheet, a vertically movable lower frame, operating devices therefor and connections extending from the said adjusting mechanism to parts connected with said movable frame, substantially as described. 2nd. In an invalid bedstead, the combination with the stationary upper frame, of devices extending along one side of said frame for holding a supporting sheet, a shaft or roller extending longitudinally

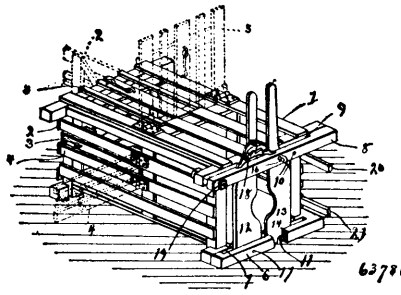
ally of the other side of said frame and provided with means for engaging said sheet, an operating arm for said shaft or roller, for



adjusting said sheet, the vertically movable lower frame, for raising and lowering said movable frame and a connection extending from said operating arm of said shaft or roller, to a part connected with said movable frame, substantially as described. 3rd. In an invalid bed, the combination with the stationary upper frame, of an adjustable head rest located at one end of said frame, a longitudinally disposed shaft or roller supported along each side of said frame, from a point beneath said head rest to the opposite extremity of said frame and provided with devices for engaging a supporting sheet, an operating arm on each of said shafts or rollers, for adjusting said sheet, the vertically movable lower frame, operating devices raising and lowering said movable frame, and connections from the operating arms of said shafts or rollers to parts connected with said movable frame, substantially as described.

**No. 63,786. Hog Trap. (Piège à porcs.)**

John T. Geddis, Sunbury, Ohio, U.S.A., 5th September, 1899; 6 years. (Filed 16th March, 1899.)



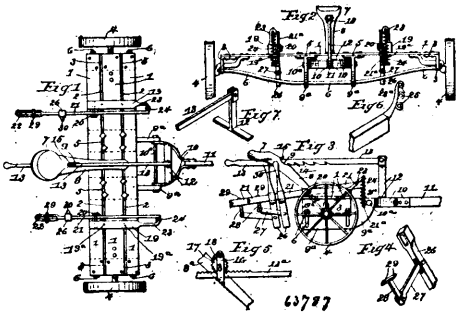
*Claim.*—1st. In a hog crate or trap, the combination of a body or cage provided with projecting side slats, a bar movably and detachably connected with said slats, and nose clamping levers pivoted to the bar whereby the nose clamping levers may be adjusted back and forth, substantially as described. 2nd. In a hog crate or trap having projecting slats as described, the combination of a bar movably and detachably connected with said slats, a snout clamp pivotally connected with the bar whereby the nose clamping levers may be adjusted back and forth, and means for clamping the neck of the animal, substantially as described. 3rd. The combination of a hog crate or cage provided with projecting slats, pivoted neck clamping members, locking mechanism for said members, and a snout clamp comprising pivoted levers, and a bar adjustably and removably mounted on the projecting slats, substantially as described.

**No. 63,787. Cultivator Frame. (Cadre de cultivateur.)**

Matthes Zöllner and Carl Zöllner, both of Blackland, Texas, U.S.A., 5th September, 1899; 6 years. (Filed 14th March, 1899.)

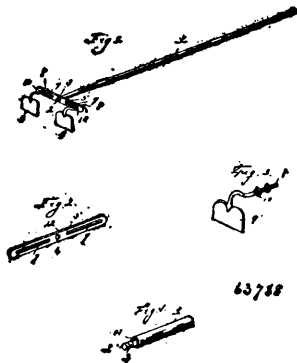
*Claim.*—1st. The combination, in a cultivator frame, of a series of plates having a space between them, angle irons to which the plates are secured at each end, the middle iron to which the said plates are

secured, and the bowed trace rods passed through the depending portion of the said middle irons and secured to the said angle irons.



2nd. The combination, with the frame, of the bars adjustably secured upon the frame, hooks projecting from one end of the bars, beams pivoted to the other end of the said bars, and the spiral springs connecting said beams and hooks. 3rd. The combination, with the frame, the bars adjustably secured to the frame, and the spring controlled beams pivoted to the said bars, of the hangers slidably secured to the beams, an arm pivoted to the hangers, and the keepers pivoted to the said arms and slidably connected to the said beams. 4th. The combination, with the frame, and the bars adjustably secured to the top thereof and having hooked ends, of the looped or slotted beams pivoted to the other ends of the bars, springs connecting one end of the beams with the hooks, hangers slidably secured to the other or slotted end of the beams, an arm pivoted to the hangers, and a keeper pivoted to said arm and working in said loop or slot, and having ears, as set forth.

**No. 63,788. Hoe. (Hoe.)**



Charles W. Watson, Wooster, Arkansas, U.S.A., 5th September 1899; 6 years. (Filed 11th March, 1899.)

*Claim.*—In a garden implement, the combination of a handle, having a reduced lower end which is screw threaded, and provided with a spline, a head having a central opening therein, provided with a groove at one point through which the reduced end of said handle extends with the spline thereon fitting within said groove, the said head being further provided with elongated slots upon opposite sides of its central opening, a nut screwed upon the reduced end of said handle for the purpose of retaining the head thereon, a plurality of blades provided with threaded shanks extended through said slots, a plurality of nuts upon each of said shanks located upon opposite sides of the head, by means of which said blades may be laterally and longitudinally adjusted with respect to said head and secured in place thereon.

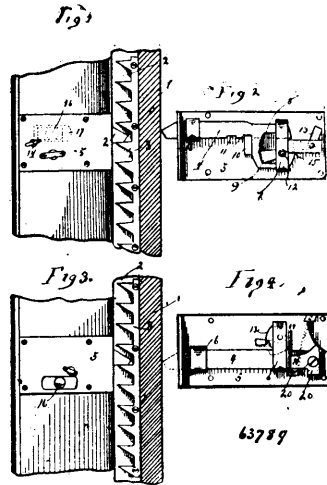
**No. 63,789. Sash Fastener and Door Lock.**

(Arrête-croisé et serrure de porte.)

Calvin A. Pease, Quincy, Illinois, U.S.A., 5th September, 1899; 6 years. (Filed 11th March, 1899.)

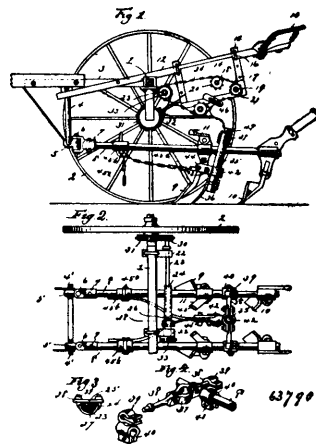
*Claim.*—A lock comprising a plate having guides and a projection, a sliding bolt retained by said guides and having notches to receive said projection, the bolt having one end enlarged and provided with an inclosed recess having curved front and rear walls and straight upper and lower walls, and an operating arm mounted upon the plate and working in said recess, the formation of the recess adapting the operating arm to co-operate with the upper wall thereof for

disengaging the notches of the bolt from the projection, and also to co-operate with the lower wall of the recess for forcing said notches



with a positive movement into engagement with said projection, substantially as described.

**No. 63,790. Cultivator Planting Device. (Plantoir.)**



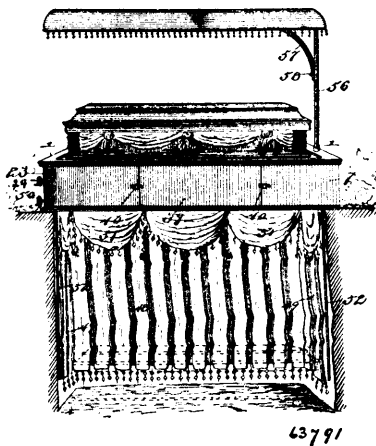
James Moses Homesley, Moffat, Texas, U.S.A., 5th September, 1899; 6 years. (Filed 11th March, 1899.)

*Claim.*—1st. The combination with a wheeled cultivator and its oscillating beams carrying shovels, of collars adjustably arranged on said beams, bearings swivelled on said collars, journaled in said bearings, and a seed dropping foot carried by said arms and provided with a plough, substantially as described. 2nd. The combination with a wheeled cultivator and its oscillating beams carrying shovels, of collars adjustably arranged on said beams, bearings swivelled on said collars, arms journaled in said bearings, a seed dropping tube provided at its lower end with a plough and a yoke clamped about the upper end of said foot and bolted to the inner, adjacent ends of said arms, substantially as described. 3rd. The combination with a wheeled cultivator and its oscillating beams carrying shovels, of swivelled bearings longitudinally adjustable on the beams, arms journaled in said bearings, a seed dropping foot connected at its upper end with said arms and carrying a plough, and straps connected at their rear ends to fixed supports carried by the cultivator, substantially as described. 4th. The combination with a wheeled cultivator and its oscillating beams carrying shovels, of swivelled bearings longitudinally adjustable on the beams, arms journaled in said bearings, a seed dropping foot connected at its upper end with said arms and carrying a plough, and straps connected at their rear ends to the lower end of said foot and at their forward ends to the lower end of said foot and at their forward ends adjustably connected to fixed supports carried by the cultivator, substantially as described. 5th. The combination with a wheeled cultivator and its oscillating beams carrying shovels, of a pendent seed dropping foot pivotally suspended at its upper end from the cultivator beams and provided with a plough, and straps connected at their forward ends to fixed supports carried by the cultivator and connected at their rear ends to the lower end of said foot by a break pin, substantially as described. 6th. The combination with

wheeled cultivator and its oscillating beams carrying shovels, of a pendent seed dropping foot pivotally suspended at its upper end from the cultivator beams and provided with a plough, means for adjustably holding the lower end of the foot fixed, a seed hopper, a flexible boot connected to the discharge end of the hopper, and a discharge tube connected at its upper end with the boot and loosely arranged at its lower end in the foot, substantially as described. 7th. The combination with a wheeled cultivator and its oscillating beams carrying shovels, of a pendent seed dropping foot pivotally suspended at its upper end from the cultivator beams and provided with a plough, means for adjustably holding the lower end of the foot fixed, a seed hopper, adjustably both vertically and longitudinally on a fixed part of the cultivator frame, a flexible boot connected to the discharge end of the hopper, and a discharge tube connected at its upper end with the boot and loosely arranged at its lower end in the foot, substantially as described. 8th. The combination with a wheeled cultivator provided with a sprocket wheel on one of its ground wheels of a seed hopper provided with suitable stirring and feeding devices, a telescoping shaft journalled in bearings removably attached to the axle, sprocket wheels fixed to the opposite ends of said shaft, a sprocket chain connecting one of said sprocket wheels on the ground wheel, and a sprocket chain connecting the other sprocket wheel with the stirring and feeding devices, substantially as described. 9th. The combination with a wheeled cultivator provided with a sprocket wheel on one of the ground wheels, of a seed hopper provided with suitable stirring and feeding devices, a telescoping shaft journalled in bearings removably attached to the axle and comprising a solid rod having a flat side and a tubular shaft sleeved on said rod and slotted upon one side, a clip adjustably clamped about the slotted portion of the tubular shaft and engaging the flat side of the rod, sprocket wheels fixed on the opposite ends of said shaft, and sprocket chains connecting said sprocket wheels respectively with the sprocket wheel on the ground wheel and the stirring and feeding devices, substantially as described.

**No. 63,791. Casket Lowering Device.**

(Appareil pour descendre les cercueils.)



Emory B. Voorhees, Ovid, Michigan, U.S.A., 5th September, 1899; 6 years. (Filed 27th February, 1899.)

*Claim.*—1st. In a burial apparatus, substantially such as described, the combination with a frame or housing and a casket lowering mechanism supported by said frame, of a curtain mechanism supported by the frame in a horizontal plane below the casket lowering mechanism out of the path thereof, and provided with curtains adapted to be lowered into a grave or vault to conceal the walls thereof, said casket lowering mechanism arranged to travel in the space bounded by the lowered curtains, whereby the curtains conceal the grave walls during a service and the operation of lowering the casket, substantially as described. 2nd. In a burial apparatus, the combination with a frame or housing and a lowering mechanism supported therein, of a curtain mechanism supported by the housing in a plane below and independent of the lowering mechanism, said curtain mechanism comprising a series of shafts which are disconnected from the lowering mechanism, a series of curtains coiled individually on said shafts, and means for operating the curtain mechanism without effecting the lowering mechanism, whereby the lowering mechanism is arranged to travel in the space bounded by the lowered curtains which may remain in position while the lowering mechanism is in service, substantially as described. 3rd. In a burial apparatus, the combination with a frame or housing, of a curtain mechanism comprising a series of shafts geared one to the other and journalled in said frame or housing, a series of curtains coiled individually on said shafts and arranged to be lowered within a grave or vault, means for operating the curtain shafts simultaneously, and a lowering mechanism supported in the housing in a horizontal plane above the curtain mechanism and having bands arranged to travel within the space bounded by the lowered

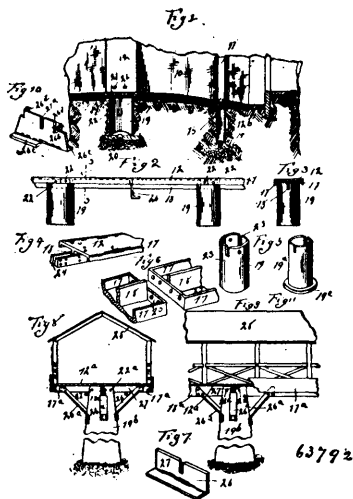
curtains, whereby the curtains may remain in their unrolled condition while the lowering mechanism travels in the space bounded by the curtains, substantially as described. 4th. In a burial apparatus, the combination with a frame or housing, of a curtain mechanism comprising horizontal shafts geared together in series and journalled in the housing at the sides and ends thereof to have the pairs of shafts at the sides and ends to rotate in opposite directions, and with all the shafts rotating simultaneously to raise or lower the curtains in unison, and means for actuating one curtain shaft normally, substantially as described. 5th. In a burial apparatus, the combination with a frame or housing, of horizontal bars fixed within the housing and carrying a series of depending brackets, the series of curtain shafts arranged at the sides and ends of the housing to be supported in the brackets thereof and geared one to the other in series to secure simultaneous rotation of the shafts, one of said shafts extending beyond the housing and having the operating device, and a series of curtains coiled individually on the shafts and arranged to be unrolled therefrom, substantially as described. 6th. In a burial apparatus, the combination with longitudinal shafts, and brake discs fast with said shafts, of a right and left threaded shaft having fixed abutments thereon, and brake bands fitted to said discs and operatively connected to the threaded shaft to be controlled thereby simultaneously on a single adjustment of said shaft, substantially as described. 7th. In a burial apparatus, the combination with longitudinal shafts, and brake discs fast with said shafts of a right and left threaded shaft having fixed abutments thereon, and brake bands fitted to the discs and engaging with the respective threaded lengths of the shaft, each band having one end fitted against one abutment on the shaft and its other end united by a threaded connection with the shaft to be adjusted thereby, whereby a single adjustment of the shaft operates the brake bands simultaneously to retard the longitudinal shafts, substantially as described. 8th. In a burial apparatus, the combination with a frame or housing and a longitudinal shaft journalled therein, of another longitudinal shaft provided with hooked plates, lowering bands or cables each consisting of a single unbroken length and having one end thereof secured permanently to the first-named shaft and its other end provided with a loop or keeper which is engaged detachably with one hook plate on the other horizontal shaft, each band or cable adapted to have its respective ends coiled equally on the two shafts and to be uncoiled therefrom simultaneously, and a brake mechanism actively connected with both longitudinal shafts, substantially as described. 9th. In a burial apparatus, a frame or housing consisting of upper and lower horizontal frames, the vertical plates or brackets united to said frames to couple the same firmly together and provided at intermediate points of their length with journal boxes, and guide rollers journalled in said plates between the boxes thereof and the upper horizontal frame, and lying in the vertical plane of said boxes, in combination with longitudinal shafts journalled in the boxes of said plates or brackets, lowering bands coiled on the shafts between the vertical plates and fitted over the guide rollers and a brake mechanism for said shafts, substantially as described. 10th. In a burial apparatus, a housing having the upper and lower frames joined firmly together, and a vertical socket tube fixed between said frames centrally at one end thereof to serve as a stay therefor, combined with the canopy frame having at one end a standard which is fitted removably in said socket tube, and a slip pin connecting the socket tube, and the canopy standard to hold the latter firmly in place, substantially as described. 11th. In a burial apparatus, the combination with a frame or housing, of vertical guide bars fastened to the frame and arranged to depend therefrom into a grave, and a casket lowering mechanism supported by the frame and arranged to travel within said guide bars, substantially as described. 12th. In a burial apparatus, the combination with a frame, of vertical guide bars attached to the frame and arranged to extend into a grave, and a curtain mechanism having curtains arranged to be lowered within the guide bars and to be held thereby away from the walls of the grave, substantially as described.

**No. 63,792. Vehicle Track.** (*Voie pour véhicules.*)

Sanford Bouton Dickinson and John A. Rogers, both of Corning, New York, U.S.A., 8th September, 1899; 6 years. (Filed 3rd May, 1899.)

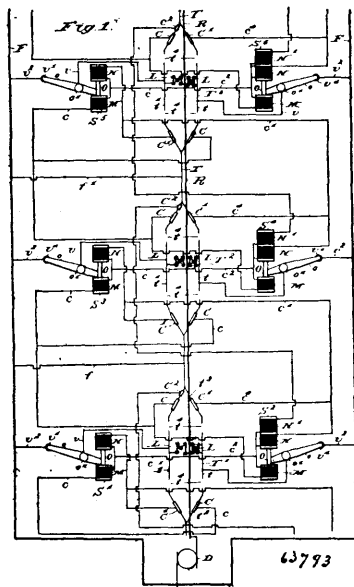
*Claim.*—1st. A track for vehicles, the track consisting in a series of hollow columns sunken in the earth and disposed with their upper ends level with the surface, the columns having vertical slots in their upper ends, all of such slots being in alignment with each other, and a track proper consisting in a length of sheet metal, the track proper being supplied with a downwardly projecting marginal flange at each side and with a centrally located flange also projected downwardly, the central flange being fitted in the slots of the columns, and the marginal flanges overlapping the upper ends of the columns respectively at the sides thereof, and transversely extended bolts passing through all of the flanges and through the columns, whereby to secure the track proper. 11th. A track for vehicles, consisting in a series of supported columns provided at their upper ends with the vertical slots, the slots being all in alignment with each other, a track proper consisting in a length of sheet metal provided with a marginal flange at each side and with a central flange between the marginal flanges, all of the flanges being projected

downwardly, and the marginal flanges being located one on each side of the columns, while the central flange is projected into the



slots of the columns, and bolts passing through the upper portion of the columns and through the central flange.

**No. 63,793. Systems of Preventing Collisions on Electric Railways.** (*Système d'empêcher les collisions sur les chemins de fer électrique.*)

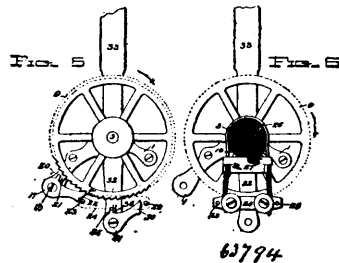


Charles Foster Bancroft and Patrick Francis Sullivan, both of Lowell, Massachusetts, U.S.A., 8th September, 1899; 6 years. (Filed 18th July, 1899.)

*Claim.*—1st. The combination in an electric railway, of a feed wire, a trolley line, provided with turnouts, having in each branch an insulated section, and means whereby the moving of a trolley or equivalent device over one branch of one of said turnouts will render the insulated section of the opposite branch of the next turnout in advance dead and prevent an approaching car from passing over said last named turnout. 2nd. The combination in an electric railway, of a feed wire, a trolley line, provided with a turnout, having an insulated section in each branch thereof, and means whereby the moving of a trolley or equivalent device over a branch of one of said turnouts will leave the insulated section of said branch dead and prevent a following car from passing over said turnout. 3rd. The combination in an electric railway, of a feed wire, a trolley line provided with turnouts having in each branch an insulated section, and means whereby the moving of a trolley or equivalent device over a branch of one turnout will render dead said branch and the opposite branch of the next turnout in advance and prevent any car from passing onto the line between said turnouts. 4th. In an electric railway, a return wire, a single

trolley line, having turnouts, provided with insulated sections, feed wires, in circuit with the sections between said insulated sections, contact plates, insulated from said last named sections but adapted to be electrically connected therewith by a trolley or equivalent conducting device passing along said contact plates, electric switches, electric conductors, connecting said feed wire and said insulated sections through said switches, and electric circuits, including said contact plates, and means for operating said switches, to open or close said switches. 5th. The combination in an electric railway, of a feed wire, a single trolley line, having turnouts, each provided with an insulated section, a switch, in circuit between said feed wire and said insulated section at one turnout, and another circuit normally open, means, arranged in said last named circuit, for operating said switch and a circuit closer, arranged in said last named circuit, at another turnout.

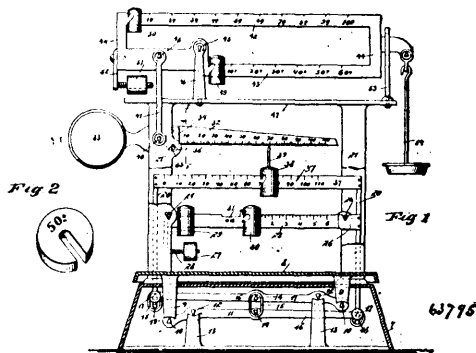
**No. 63,794. Spring Actuated Motor.** (*Moteur actionné par un ressort.*)



Albert Edward Dafoe and Frank Amenzo Walters, assignee of John Josef Kowicz, all of Stevens Point, Wisconsin, U.S.A., 8th September, 1899; 6 years. (Filed 24th April, 1899.)

*Claim.*—1st. In a motor of the class described, a spring actuated escape wheel, a lever fulcrumed axially concentric with said escape wheel, a fixed pawl and a pawl carried by said lever, a yoke carried by said lever, a bar carried by said yoke, lateral pins carried by said bar and co-acting with said pawls to alternately project them into the path of the teeth on said escape wheel, as and for the purpose set forth. 2nd. In a motor of the class described, the stationary bracket, the shaft journaled in said brackets, the spring actuated escape wheel fixed on said shaft, and the lever fulcrumed on said bracket, a yoke frictionally mounted on said wheel, a bar carried by said yoke, and a pair of lateral pins fixed to said yoke and projecting into the path of said pawls, as and for the purpose set forth. 3rd. In a motor of the class described, the combination with the escape wheel, the lever fulcrumed axially concentric therewith, a gravity pawl fulcrumed on said lever, a second gravity pawl fulcrumed on a fixed support, the yoke carried by the escape wheel, the spring actuated connecting bar encompassing the parallel arms of said yoke, the cross bar adjustably secured to the free ends of the arms of said yoke, and the lateral pins fixed to said cross bars and arranged to alternately lift said gravity pawls into engagement with said escape wheel, as and for the purpose set forth.

**No. 63,795. Computing Scales.** (*Balance à computation.*)



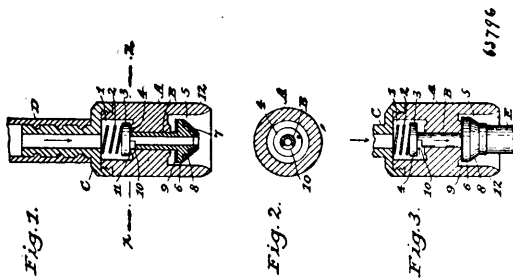
William Rice Dunn and Lycurgus Harrison, both of Alton, Indiana, U.S.A., 8th September, 1899; 6 years. (Filed 24th April, 1899.)

*Claim.*—1st. The combination with a frame, of a platform mounted and movable thereon, platform beams in connection with the platform, rods in connection with the platform beams and extending vertically, a scale beam extending horizontally between the rods and rigidly connected thereto, a fulcrum movable along the scale beam, a second scale beam pivoted on the frame and having pivotal connection with one of said rods, weights movable on the second

scale beam, a price beam mounted on the frame and engaged by the fulcrum on the first named scale beam, a main scale beam mounted on the frame, and a connection between the price beam and the main scale beam. 2nd. The combination of a frame, a platform mounted on the frame, platform beams beneath the platform and supporting the same, vertically extending rods connected with the platform beams, a horizontal scale beam rigidly attached to the rods and extending between the same, a second scale beam pivotally mounted on the frame and pivotally connected with one of the rods, a weight movable on each of the scale beams, a price beam mounted on the frame and engaged by one of the weights, a main scale beam mounted on the frame, the main scale beam having two parallel portions, a weight movable on each of said portions, and a link connecting the price beam with the main scale beam. 3rd. In a scale, the combination with the frame, of a platform, two platform beams mounted beneath the platform and supporting the platform, an extension carried by each platform beam, the extensions running oppositely to each other and having laterally bent end portions, links carried on said end portions, and scale beams hung in said links and actuated by the scale beams. 4th. The combination with the frame, of a platform and platform beams, a scale beam having connection with the platform beams and moved vertically thereby, a fulcrum movable along the said scale beam, a price beam having upwardly disposed knife edges bearing against the frame, the price beam being engaged by the fulcrum of the said scale beam, a main scale beam mounted on the frame, and a link connecting the price beam with the main scale beam. 5th. The combination with the frame and platform mechanism, of the horizontally disposed beam moved vertically by said platform mechanism, a fulcrum movable along the beam, a price beam located above the fulcrum and capable of being engaged thereby, the price beam having upwardly disposed knife edges bearing against the frame, a main scale beam mounted on the frame, and a connection between the price beam and the main scale beam. 6th. In a scale, the combination with the frame, of a platform, two platform beams fulcrumed beneath the platform on a stationary support and projected toward each other from said fulcrums, a link connecting the beams at their inner or free ends, the beams supporting the platform, an arm for each beam, the arms running oppositely to each other and respectively toward the fulcrum of the beams, and scale mechanism connected with the arms of the beams.

**No. 63,796. Check Valve for Air.**

(*Souape d'arrêt atmospherique.*)



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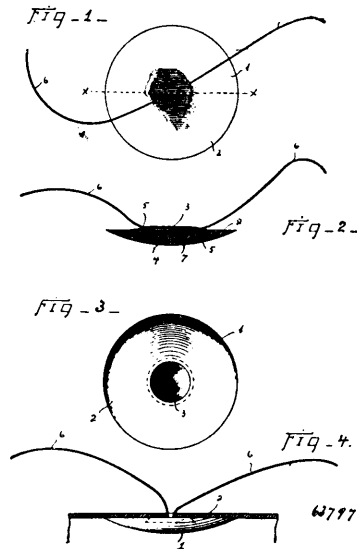
George Francis Wilson, assignee of Gaston Edward Cordeau, both of Brooklyn, New York, U.S.A., 8th September, 1899; 6 years. (Filed 20th March, 1899.)

*Claim.*—1st. In a check valve for air, the combination of a body having a longitudinal passageway through the centre, and an enlarged valve chamber at both its upper and lower end, of a tubular valve stem having a sliding movement with said passageway, the said tubular stem being closed at its upper end and having an orifice under the upper valve for the admission of air, an upper and a lower disc valve, the lower valve being provided on its outer face with a hollow cone of soft rubber, substantially as shown and described. 2nd. In a check valve for air, the combination of a body A and a double acting sliding valve, composed of an upper and a lower disc valve, a tubular stem B closed at its upper end, having an orifice as 10 for the admission of air with a soft rubber cone, positioned below the lower valve, the said double acting valve being limited in its movement by an upper and lower valve seat within the enlarged valve chambers, substantially as shown and described. 3rd. In a check valve for air, the combination of a body A of a double acting valve composed of an upper and lower disc valve operatively connected together by a tubular valve stem B, having an opening as 10 therein below the upper valve, a spiral spring enclosed within the upper chamber of said body, the said body having its lower valve chamber recessed so as to leave an annular wall 12, for the purpose specified. 4th. In a check valve for air, a body having an upper and a lower valve chamber provided with annular seats, a passageway through the centre of said body whereby the upper and lower chambers are connected, an upper and lower disc valve united by a tubular stem which is closed at its upper end and having an opening close up under the upper valve for the admission of air into the tubular stem, a spiral spring enclosed

within the upper chamber, said spring pressing down upon the upper disc valve and a soft rubber cone mounted upon and below the lower disc valve, substantially as shown and described. 5th. In a check valve for air, the combination of a body provided with an upper and a lower valve chamber, a passageway drilled centrally through the body connecting said upper and lower valve chambers, of a sliding tubular valve stem, uniting an upper and a lower disc valve, said valves closing alternately upon seats formed in the said upper and lower valve chambers, of a series of steps forming part of the lower valve disc or flange upon which stops a soft rubber cone is mounted, all arranged substantially as shown and described.

**No. 63,797. Rubber Tire Patch.**

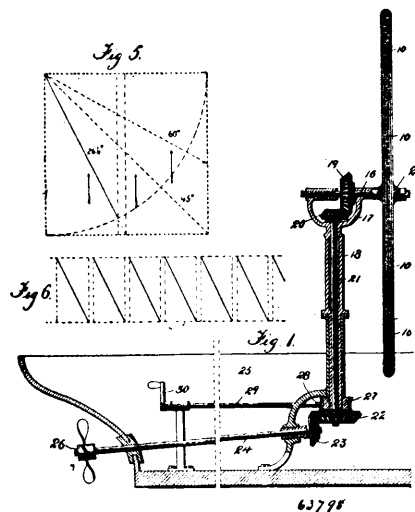
(*Piece pour bandage en caoutchouc.*)



The National Cement and The Rubber Manufacturing Co., all of Toledo, Ohio, U.S.A., 8th September, 1899; 6 years. (Filed 9th March, 1899.)

*Claim.*—1st. In a repair patch for rubber tires, a disc of vulcanized rubber, a pocket formed upon its face, having converging walls toward the mouth and adapted to hold unvulcanized rubber having a string imbedded therein. 2nd. In a repair patch for rubber tires, a disc of vulcanized rubber, a fabric embedded therein in central position, a recess formed in the face of the disc having converging walls, unvulcanized rubber introduced into the recess and completely filling the same, and a string imbedded in the unvulcanized rubber, both ends of which project freely beyond the rubber.

**No. 63,798. Wind Mill. (Roue à vent.)**

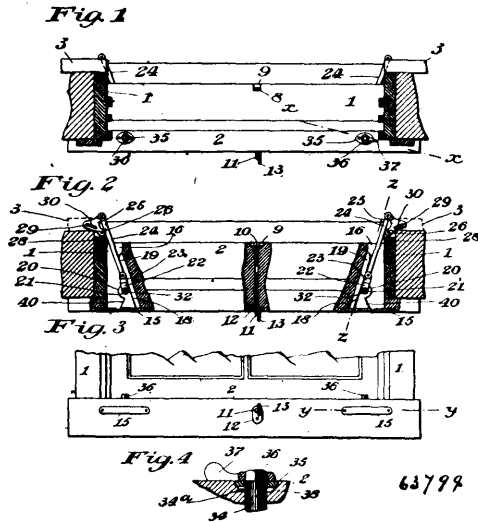


Jean Baptiste Girard, St. Aimé, and P. Hughes, St. Hugues Gelinas, both of Quebec, Canada, 8th September, 1899; 6 years. (Filed 7th February, 1899.)

*Claim.*—A wind mill, comprising a hub having radiating arms integral therewith, laterally extending lugs fixed upon said arms

and provided with hooks at the extremities thereof, a segmental portion having suitable openings to receive said arms, said hooks engaging the under side of the edges of said radiating arms, a rim semicircular in cross section secured to the outer ends of said hollow arms, diagonally arranged bars connecting the edges of said rim, flexible vanes secured at the outer ends to said diagonal bars, the inner ends of said vanes being adjustably mounted in suitable angular openings in said segmental portions, and means for locking said flexible vanes in their adjusted position, as substantially described.

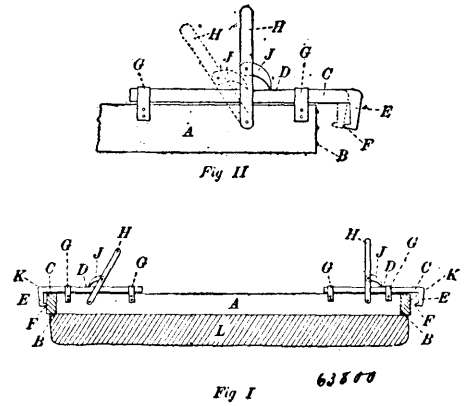
**No. 63,799. Shutter Fastener.** (*Arrête fenêtre.*)



Hermann Schelling, Amsterdam, Kentucky, and Alvin Welling and Louis Fritz, both of Covington, Kentucky, U.S.A., 8th September, 1899; 6 years. (Filed 21st April, 1899.)

*Claim.*—1st. In a shutter worker, the combination of a window casing, a shutter hinged thereto, a crank arm mounted to turn on the casing, a lever pivoted on the casing and having a slotted connection with the shutter, and a link connecting the lever and crank arm, substantially as set forth. 2nd. In a shutter worker, the combination of a window casing, shutter hinged thereto, a crank arm, an elbow lever having slotted connection with the shutter, a link connecting the elbow lever and crank arm, and a stop to limit the movement of the crank arm in one direction, substantially as set forth. 3rd. In a shutter worker, the combination of a window-casing, a shutter hinged thereto, a slotted bracket carried on the casing, a crank arm mounted to turn on the casing, a lever pivoted and arranged to turn in the slot of the bracket and having slotted connection with the shutter and a link connecting the lever to the crank arm, substantially as set forth. 4th. In a shutter worker, the combination of a window casing, a shutter hinged thereto, a frame mounted on the casing, a crank arm mounted to turn on the frame, stops on the frame to limit the movement of the crank arm, a lever pivoted to the casing and having a slotted connection with the shutter, and a link connecting said lever with the crank arm, substantially as set forth. 5th. In a shutter worker, the combination of a window casing, a shutter hinged thereto, a crank arm mounted to turn on the casing and provided with a squared socket, a shaft having a squared end engaged with the socket of said arm, a lever pivoted to the casing and having slotted connection with the shutter, and a link connecting the lever and crank arm, substantially as set forth. 6th. In a shutter worker, the combination of a window casing, a shutter hinged thereto, a frame mounted on the casing and provided with a bearing plate of the frame, means to turn said crank arm, a lever pivoted to the casing and having connection with the shutter, and a link connecting said lever with the crank arm, substantially as set forth. 7th. In a shutter worker, the combination of a window casing, a shutter hinged thereto, a frame mounted on the casing and provided with a bearing plate having an opening, a crank arm formed with a boss having a squared opening and adapted to fit in the central opening of the bearing plate, a shaft having a squared end engaged with the squared opening of the crank arm boss, a lever pivoted to the casing and having a slotted connection with the shutter, and a link connecting the said lever with the crank arm, substantially as set forth. 8th. In a shutter worker, the combination of a window casing, a shutter hinged thereto, a crank arm mounted to turn on the casing and provided with a squared socket, a shaft having a squared end engaged with the socket of the crank arm, an elbow lever pivoted on the casing and having a slotted connection with the shutter, a link connecting the elbow lever and crank arm, and a stop to limit the movement of the crank arm in one direction, substantially as set forth.

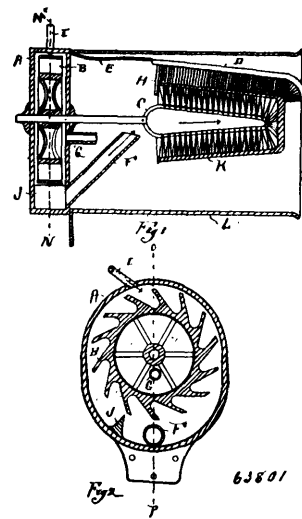
**No. 63,800. Joint Separator.** (*Séparateur de joint.*)



Peter O'Hair, assignee of Dennis O'Hair, both of Sterling, Illinois, U.S.A., 8th September, 1899; 6 years. (Filed 15th April, 1899.)

*Claim.*—1st. In the hereindescribed separator, the combination of the strip A and movable rod C, and means substantially as shown, for holding and operating the latter for the purpose described. 2nd. In the herein described separator, the combination of the sliding rod C, the hook E and ratchet teeth D thereon, the strip A upon which the rod C is seated, the connecting lever H, the pawl J on said lever, by means of which said rod is operated and held respectively, substantially as shown and for the purpose described. 3rd. In the herein described separator, the combination of the strip A, the spurs B at the extremities thereof, the hooked rod C, ratchet teeth D and point F thereon, the lever H, and the pawl J pivoted to said lever, all suitably held together in an operative manner, substantially as shown and for the purpose described. 4th. In the herein described separator, the combination of the strip A, the spurs B formed on the extremities thereof, the hooked rod C seated on the strip A, the ratchet teeth D and point F formed on said rod, the guides G pivoted to strip A and rod C, and the pawl J thereon, substantially as shown and for the purpose described.

**No. 63,801. Tumbler Washer.** (*Machine à laver les verres.*)

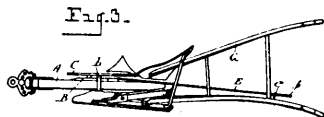
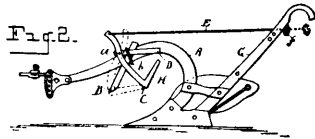
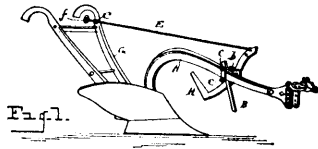


Joseph J. Evans and William Rech, both of North Tonawanda, New York, U.S.A., 8th September, 1899; 6 years. (Filed 12th April, 1899.)

*Claim.*—1st. In a tumbler washer, the combination of a casing provided with a water inlet, a stationary brush attached to said casing, a hollow rotary brush mounted on a shaft journaled in the casing, a water wheel on said shaft within the casing, a discharge pipe leading from the casing to the interior of said hollow brush, and a deflecting plate within the casing adjacent to said wheel, for deflecting discharge water into the discharge pipe, all substantially as described. 2nd. In a tumbler washer, the combination of a casing provided with a water inlet, a stationary brush attached to said casing, a hollow rotary brush mounted on a shaft journaled in the casing, a water wheel on said shaft within the casing and a discharge pipe leading from the casing to the interior of said hollow brush, substantially as described. 3rd. In a tumbler washer, the

combination of a casing containing a rotary water motor, a hollow rotary brush operated by said motor, a spring supported stationary brush attached to the casing adjacent the rotary brush and a projection on the stationary brush adapted to be engaged by the article being cleansed and thereby force the brush against its exterior surface, substantially as described.

**No. 63,802. Colter Cleaner.** (*Nettoyeur de charrue.*)

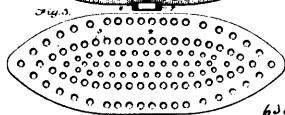
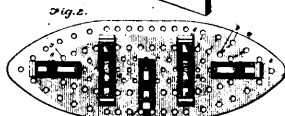
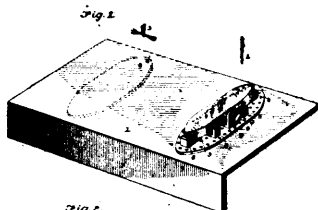


63802

Franklin Lamphere and Charles M. Lamphere, both of Armada, Michigan, U.S.A., 8th September, 1899; 6 years. (Filed 1st April, 1899.)

*Claim.*—1st. In a colter cleaning device, the combination with the plow beam, the adjustable colter blade, the clamp embracing said blade and beam, a bar also embraced by said clamp, the cleaning arm pivoted to the projecting end of said bar, and the rod for actuating said arm. 2nd. In a colter cleaning device, the combination with a plow beam, the colter, the pivoted arm mounted on the plow beam so as to shear by the colter, said arm having a guard extending rearwardly at right angles thereto, and means for actuating said arms.

**No. 63,803. Gauge for Brush Machines.** (*Jauge pour machines à faire les brosses.*)



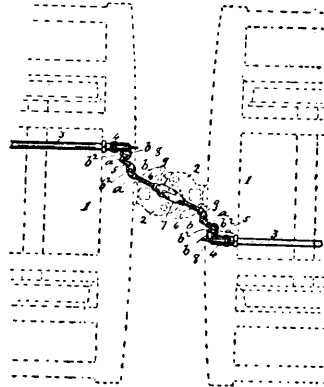
63803

The E. B. Eddy Company, Hull, Quebec, Canada, assignee of McClintock Young, Frederick, Maryland, U.S.A., 8th September, 1899; 6 years. (Filed 28th March, 1899.)

*Claim.*—1st. In a brush machine, the combination of a table or support and a portable brush block holder provided respectively with means for securing the holder rigidly in different predetermined positions, substantially as described. 2nd. In a brush machine, the combination of a table or support and a portable brush block holder provided with interlocking means substantially as described to retain the holder rigidly in different predetermined positions. 3rd. The combination with boring and tufting mechanisms, of a work supporting table therefor, two pairs of pins projecting upwardly from said table and adjacent respectively to said mechan-

isms, a brush block holder adapted to rest flatly on the table and provided with two rows of holes forming pairs of sockets side by side, and each pair adapted to receive either of the pairs of pins. 4th. In a brush machine, the combination of an inclined table or support and a portable brush block holder provided respectively with means for securing the holder rigidly in different predetermined positions. 5th. The combination with an inclined supporting table provided with two pins, of a brush block holder formed with a series of pairs of holes arranged side by side and adapted to receive respectively the two pins.

**No. 63,804. Ball Joint.** (*Joint de boules.*)

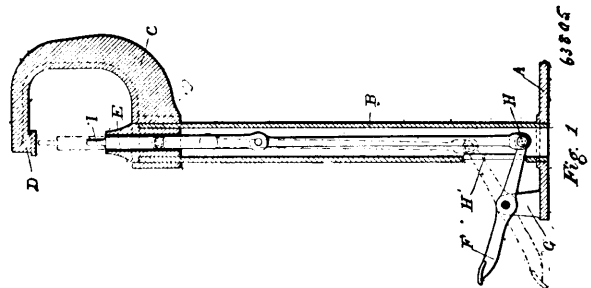


63804

Henry H. Vaughan, Reading, Pennsylvania, Joseph O. Pattee, St. Paul, Minnesota, and Harvey M. Loomis, New York City, New York, U.S.A., 8th September, 1899; 6 years. (Filed 3rd February, 1899.)

*Claim.*—1st. A ball and socket joint constructed for a limited oscillation, one member of which has two concentric spherical surfaces of different radii, which are acted on, respectively by a packing and a bearing surface carried by the other joint member, with said packing and the joint surface packed thereby located inward of said bearing surfaces, substantially as and for the purposes set forth. 2nd. The ball and socket joint comprising the ball member having the two concentric spherical surfaces  $a^1$  and  $a^2$  separated from each other with the latter inward of the former, the socket member having the ring seat or groove  $b^1$ , the packing ring  $c$  seated in said groove and bearing against said surface  $a^2$  on the ball member, and the nut  $b^2$  forming part of the socket member and provided with the bearing surface  $b^3$  for co-operation with said surface  $a^1$  on the ball, all substantially as described. 3rd. In metallic brake pipe coupling connections, a ball joint uniting the angle cock or fixed car pipe section to the primary adjacent section of the coupling pipes through a nipple or fitting on one member of said joint set at such an angle to the axis of the joint that, when the pipes are coupled together, in working position, the angle of oscillation of the couplings will be substantially equal on either side of the vertical plane through the two angle cocks or the normal line of said coupling connections, substantially as described.

**No. 63,805. Relasting Machine.** (*Machine à réenformer.*)



63805

Amos G. Fitz, Auburn, Maine, U.S.A., 11th September, 1899; 6 years. (Filed 25th July, 1899.)

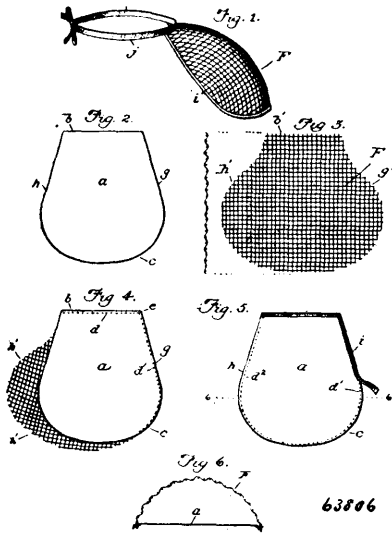
*Claim.*—1st. In a relasting machines two members, one adapted to reciprocate with respect to the other, the stationary member lying in the path of the other, one member terminating in a spindle adapted to enter the spindle hole of and support a last and the other terminating in a presser foot adapted to impinge the bottom only of the heel of a shoe, whereby the heel of the shoe is free to slide



under the presser foot during the operation of relasting, and means for imparting a reciprocating movement to one of said members. 2nd. In a relasting machine, two members, one adapted to reciprocate with respect to the other, the stationary member lying in the path of the other, one member terminating in a spindle adapted to enter the spindle hole of and support a last, and the other terminating in a presser foot adapted to impinge the bottom only of the heel of a shoe and to afford an unobstructed space extending around the entire horizontal periphery of the last, and means for imparting a reciprocating movement to one of said members.

**No. 63,806. Woven Wire Pad.**

(*Toussinet en tissu métallique.*)

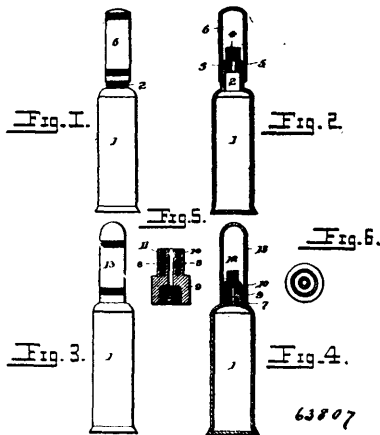


August Hermann Brinkmann, assignee of Harry Herman Keil, both of Baltimore, Maryland, U.S.A., 11th September, 1899; 6 years. (Filed 22nd May, 1899.)

*Claim.*—A woven wire pad for bustles and other articles of personal wear consisting of a cloth facing stretched and lying in a plane and forming one face of the pad, and a woven wire bulging form lying on one side of said cloth facing and forming the opposite face of the pad and having its entire outline or border edge secured to said cloth facing the meshes of said wire bulging form contracted only on the border edge where secured, as set forth.

**No. 63,807. Cement Tube and Distributing Brush.**

(*Tube et brosse pour ciment.*)

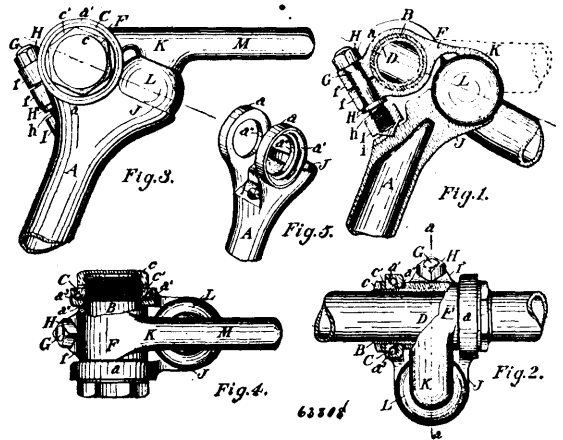


Andrew Lewis Weis, Toledo, Ohio, U.S.A., 11th September, 1899; 6 years. (Filed 11th April, 1899.)

*Claim.*—A receptacle for the purpose set forth, consisting of a flexible metallic tube closed at its lower end and provided with an externally threaded aperture pipe at its upper end, a nipple having an opening extending centrally therethrough, the lower portion of said opening being enlarged and threaded for the reception of said aperture pipe, the upper end of said nipple being channelled out, forming parallel walls 10 and 11, the bristles having a portion of

their ends seated in the channels of said nipple and held therein by clamping the wall 11 therearound and the guard cup 13 adapted to telescope over said nipple, substantially as shown and described.

**No. 63,808. Bicycle. (Bicycle.)**



Daniel O. McAuliff and William A. B. Hicks, both of Toronto, Ontario, Canada, 11th September, 1899; 6 years. (Filed 30th January, 1899.)

*Claim.*—1st. A post for the handle bars or seat, consisting of a stem having a bifurcated top provided with a horizontal bore, a sleeve passing through the horizontal bore, a clamp contained between the bifurcated ends embracing the sleeve, a lug projecting from the clamp, a cup integrally formed with the stem, a cushion contained between the cup and the lug of the clamp, substantially as specified. 2nd. A post for the handle bars or seat, consisting of a stem having a bifurcated top provided with a horizontal bore, a sleeve passing through the horizontal bore, a clamp contained between the bifurcated ends embracing the sleeve, a lug projecting from the clamp, a cup integrally formed with the stem, an adjusting nut to regulate the pressure of the lug on the cushion, substantially as specified. 3rd. A seat post for the handle bars or saddle of a foot propelled vehicle, consisting of a shank having a bifurcated end, a horizontal bore through the bifurcated ends, a sleeve or bar passing through the bore, a clamp contained between the bifurcated ends embracing the sleeve or bar, a clamping bolt for the clamp, an adjusting nut fitted on the clamping bolt and bearing against the stem, a cup fitted to the stem, a cushion or buffer contained in the cup, and a lug projecting from the clamp bearing on the top of the cushion, substantially as specified. 4th. A seat post for the handle bars or saddle of a foot propelled vehicle, consisting of a shank having a bifurcated end, a horizontal bore through the bifurcated ends embracing the sleeve or bar, a clamping bolt for the clamp, an adjusting nut fitted on the clamping bolt and bearing against the stem, a cup fitted to the stem, a cushion or buffer contained in the cup, and a lug projecting from the clamp bearing on the top of the cushion, and ball bearings provided for the sleeve or bar and bifurcated ends of the shank, substantially as specified.

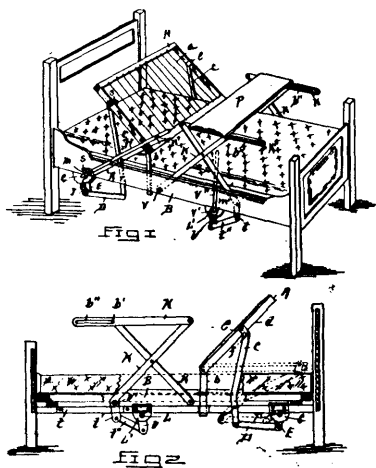
**No. 63,809. Bed Attachment for Invalids.**

(*Attache de lit pour invalides.*)

Ferry M. Forbes, Milford, Michigan, U.S.A., 11th September, 1899; 6 years. (Filed 25th May, 1899.)

*Claim.*—In a bed attachment for invalids, the combination with the bed frame, the standards mounted in the sides of the frame to move vertically, the supporting frame pivoted to said vertically movable standards, sliding clips mounted on the rails of said supporting frame, the side levers pivoted to the frame of the bed and to said clip on said supporting frame, and means for actuating said levers to raise and lower said frame, substantially as set forth. 2nd. In a bed attachment for invalids, the combination with the bed frame, the opposed standards mounted to move vertically in said bed frame, the supporting frame pivoted to said vertically movable standards, the levers pivoted to the bed independent of the pivot of the supporting frame and engaging the upper end of said supporting frame, the rock shaft supported on the bed frame, the links connecting said shaft with said levers, means for actuating said levers, and the ratchet for locking said levers in any desired position. 3rd. In a bed attachment for invalids, the combination with the bed frame, the lazy tongs or pivoted arms mounted on the bed frame adjacent to said supporting frame, one of said levers having a depending end which is adapted to travel in a way in the frame of the bed, a rock shaft mounted on the frame of the bed, the link connecting said shaft with said arms whereby said arms are actuated, and a support or table carried by said arms. 4th. In a bed attachment for invalids, the combination with the bed frame,

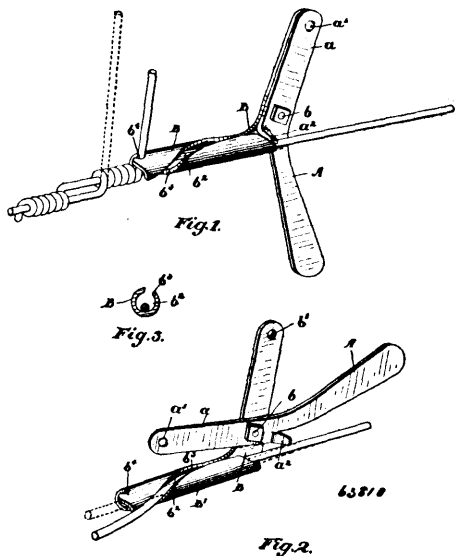
of the pivoted supporting frame mounted thereon, the pivoted levers having a sliding engagement with the upper end of said



63809

frame, the rock shaft, the links connecting said shaft with said levers, said shaft being formed of two united parts to permit of longitudinal adjustment thereof, substantially as set forth.

**No. 63,810. Wire Splicer.** (*Epissoir pour fil de fer.*)



63810

Fig. 2.

Charles Gilbert Davis, Freeman, Ontario, 11th September, 1899; 6 years. (Filed 17th January, 1899.)

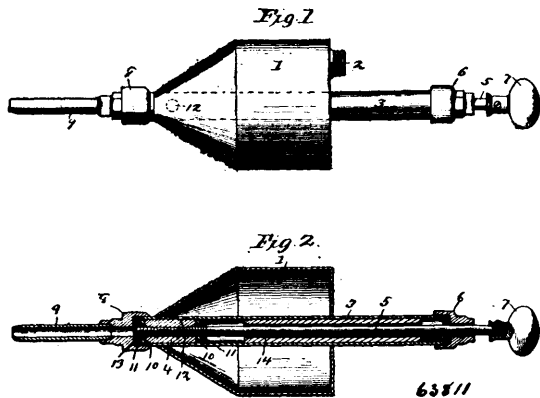
*Claim.*—1st. A splicer for wire comprising two bent arms suitably pivoted together, the end of one being provided with a central passage way, a serpentine groove extending from end to end of the same and a notch at the outer end, as and for the purpose specified. 2nd. A splicer for wire comprising two bent arms suitably pivoted together, the end of one being provided with a central passage way, a serpentine groove extending from end to end of the same, and a notch at the outer end, and the other arm being provided with a lug *a*<sup>2</sup> designed to overhang the inner end of the serpentine groove and passage way, as and for the purpose specified. 3rd. The combination with one bent arm provided with a central passage way, a serpentine groove extending from end to end and a notch at the outer end, of the co-acting arm suitably pivoted on the aforesaid arm and having a spring end provided with a teat formed at its opposite end designed to engage when the arm is closed with a hole on the corresponding end of the aforesaid arm, as and for the purpose specified.

**No. 63,811. Oiler.** (*Graisneur.*)

Patrick J. Tormay, New Haven, Pennsylvania, U.S.A., 11th September, 1899; 6 years. (Filed 20th February, 1899.)

*Claim.*—1st. An oiler having a cup, a feed tube arranged within the cup and provided at its front end with a discharge nozzle, said feed tube having at its front end a feed opening in communication

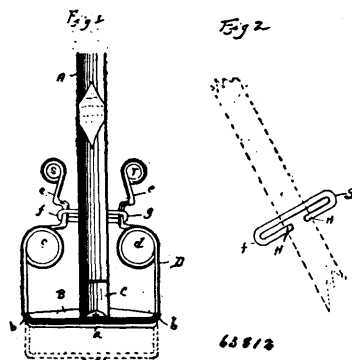
with the interior of the cup, a plunger operating in the feed tube (contiguous to said feed opening and adapted, when advanced, to



63811

close the latter to exclude the contents of the cup from the feed tube), and having its stem exposed beyond the rear end of the feed tube, and a stop adjustably fitted in the feed tube in the path of the rearward movement of the plunger to limit the capacity of the portion of the feed tube in front of the plunger, substantially as specified. 2nd. An oiler having an oil cup, a feed tube arranged in the oil cup and provided at its front end with a discharge nozzle, said feed tube having a feed opening in communication with the cup, a plunger operating in the feed tube, and a stop adjustably fitted in the feed tube to limit the capacity of the feed tube in advance of the plunger, and movable by means of the plunger, substantially as specified. 3rd. An oiler having an oil cup, a feed tube arranged axially in the oil cup and provided at its front end with a discharge nozzle, said feed tube having a lateral feed opening in communication with the cup, a plunger operating in the feed tube, and an adjustable stop, consisting of a tube, movably fitted in the bore of the feed tube with its front end in the path of the rearward movement of the plunger, and frictionally held at the desired adjustment, substantially as specified. 4th. An oiler having an oil cup, a feed tube extending axially through the oil cup and provided at its front end with a reduced discharge nozzle, said feed tube having a lateral feed opening in communication with the cup, a plunger operating in the feed tube and adapted, when advanced, to close said feed opening, and an adjustable stop consisting of a tube movably fitted in the bore of the feed tube, with its front end in the path of the rearward movement of the plunger, substantially as specified. 5th. An oiler having an oil cup, a feed tube extending axially through the oil cup and provided contiguous to its front end with a lateral feed opening communicating with the oil cup, a nozzle, a coupling connecting the nozzle with the front end of the feed tube beyond the oil cup, and having a shoulder forming a stop, a plunger fitted in the feed tube and adapted, when advanced in contact with said shoulder or stop, to close the feed opening in the feed tube, said plunger having a stem extending through the feed tube and projecting beyond the rear end thereof, and a stop adjustably fitted in the feed tube in the path of the rearward movement of the plunger, substantially as specified.

**No. 63,812. Mop Holder.** (*Porte-torchon.*)



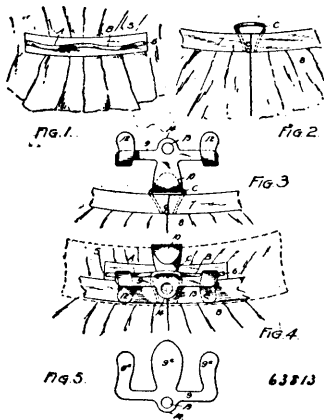
63812

Clarence W. Parks, Lowell, Michigan, U.S.A., 11th September, 1899; 6 years. (Filed 17th May, 1899.)

*Claim.*—1st. In a mop holder, the combination of a handle, a cross bar having a U-shaped cross section secured at one end of said handle, an adjustable bar composed of a single piece of wire bent in a U-form at its central point, and having its ends carried upward to engage with the ends of said cross bar, above which point they are

turned to form spiral springs, thence carried inward to said handle and upward and outward and inward to form shoulders, and terminated in rings, and loops engaging over said wires and secured to said handle, whereby said adjustable bar is secured in position, substantially as described. 2nd. In a mop holder, the combination of the handle A, the cross bar having a U-shaped cross section, said cross bar provided with a ferrule C, by means of which it is secured to said handle, the adjustable portion D composed of a single piece spring wire bent in U-form at its centre to form the bar a, said bar a arranged to unite with the cross bar B to form the mop clamp, the ends of the wires being bent forward at right angles to said bar a and guided in the ends of said cross bar B, above which they are constructed in the form of spiral springs c, d, from whence they are bent inward and carried upward along said handle in a zig-zag manner to form the rings s, r, the double staple passing through the handle and forming loops f and g adapted to receive said zig-zag ends and to engage with the shoulders to hold said clamp in its adjusted portion, substantially as described.

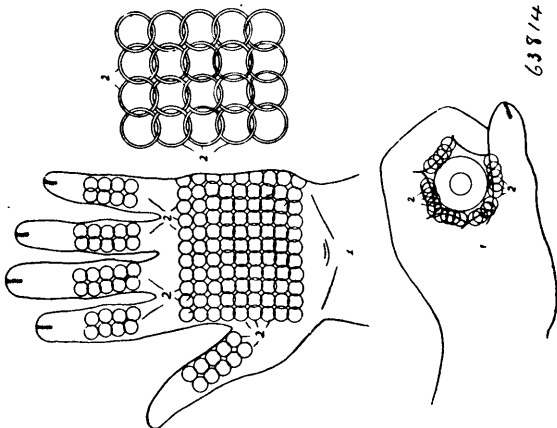
**No. 63,813. Skirt Support. (Support de jupe.)**



Lucie Arvilla Graham, Denver, Colorado, U.S.A., 11th September, 1899; 6 years. (Filed 17th May, 1899.)

*Claim.*—1st. A skirt supporter comprising a bar having an upwardly projecting skirt supporting arm for engagement with the skirt, and having inwardly and downwardly turned arms for engagement with the waist, substantially as described. 2nd. A skirt supporter comprising a bar having an upwardly projecting skirt supporting arm extending from the upper edge and provided with an outwardly turned hook and a series of hooks turned inwardly from said bar for engaging the waist, as set forth. 3rd. A skirt supporter comprising a bar having a central upwardly projecting skirt supporting arm whose upper portion is provided with an outwardly turned hook, the extremities of said bar being provided with inwardly turned downwardly projecting hooks, for engagement with the waist, as set forth.

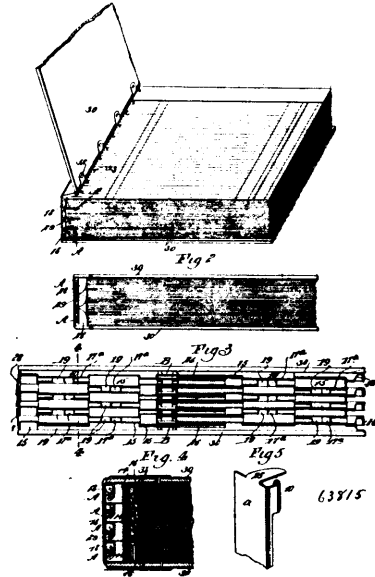
**No. 63,814. Glove. (Gant.)**



May Murray, Detroit, Michigan, U.S.A., 11th September, 1899; 6 years. (Filed 18th May, 1899.)

*Claim.*—As a new article of manufacture, a glove provided with guards upon its palm, inner thumb and finger portions, each guard consisting of rings interwoven with each other, and means for securing said rings to said portions of the glove, substantially as described.

**No. 63,815. Temporary Binders. (Reliure temporaire.)**



Charles Theodore Rosenthal, Batesville, Arkansas, U.S.A., 11th September, 1899; 6 years. (Filed 19th May, 1899.)

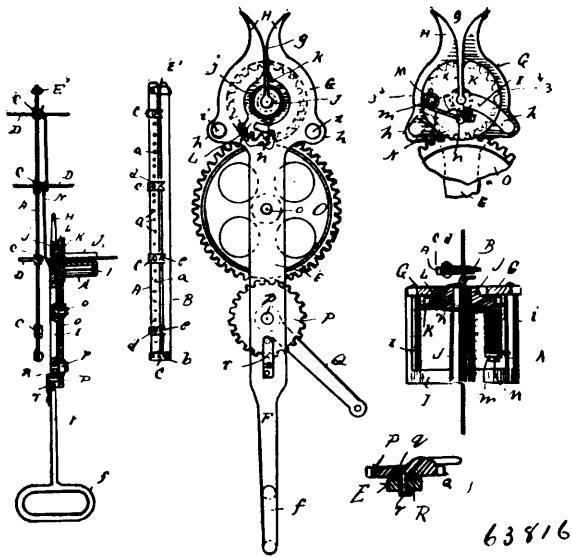
*Claim.*—1st. In a binder for leaves or similar purposes, an upper and a lower member having a hinged connection, said members being provided with means for holding leaves between them, guide plates secured to the inner faces of said members, the guide plates for the two members extending in opposite directions and being placed out of vertical alignment, each guide consisting of a body and hook section carried by the body, and a locking plate held to slide between the hook and the body sections of the guides, said locking plate being provided with recesses arranged to register with the hook portions of the said guides, as and for the purpose set forth. 2nd. In a binder for leaves or other purposes, an upper and a lower member having a hinged connection and means for holding leaves between them, guide plates secured to the inner faces of the two members, the guide plates for the members being alternately arranged, each guide plate comprising a body and a return section from the body, and a spring controlled locking plate fitted to slide between the bodies of the guide plates and their return portions, the said locking plate being provided with recesses capable of simultaneously registering with the return portions of all the guide plates, for the purpose set forth. 3rd. In a temporary binder or a binding device, the combination with an upper and a lower member having a hinged connection, and guides fixedly secured to the inner faces of the two members, the guides of the members being arranged to alternate, each guide consisting of a body and a return portion, of a tension controlled locking plate or bar mounted to slide between the body and return portions of said guides, the said locking plate or bar being provided with recesses in its upper and in its lower edges, which recesses are adapted in one position of the said locking plate or bar to receive the return portions of the said guides, for the purpose set forth. 4th. In a temporary binder, the combination of two hinged members, guide plates respectively secured to said members, and a locking plate slidably mounted on the guide plates and adapted to co-act with them, whereby to lock or release the hinge of said members. 5th. In a temporary binder, the combination of two hinged members, guide plates respectively secured to said members and each having an inturned end or hook portion, and a locking plate having sliding connection with said inturned ends or hook portions, the locking plate being formed with notches capable of registering with the hook portions. 6th. In a temporary binder, the combination of two hinged connected members, a locking plate carried by the binder and having notches in its edges, and means carried by each of said members for engaging the locking plate, whereby to hold the members immovable, the locking plate being slidably to place means and the notches in juxtaposition to permit the movements of the members.

**No. 63,816. Apparatus for Applying Stay Wires to Wire Fences. (Appareil pour assujettir les états de fil métallique aux clôtures de fil de fer.)**

Orrin E. Simmons, South Byron, Wisconsin, U.S.A., 11th September, 1899; 6 years. (Filed 24th June, 1899.)

*Claim.*—1st. In apparatus for applying stay wire to wire fences, the combination of two parallel flat bars, one bar having a series of perforations therethrough, a foot piece rigidly secured to one bar and pivotally connected to the other bar, a series of sliding clips vertically movable upon one bar and provided with holes adapted

to register with the perforations in the bar on which said clips slide, and said clips having projecting notched ends for engagement



with the other bar, means for holding said clips in the positions to which they have been adjusted, and a retaining loop hinged to the upper end of one bar and adapted to be dropped over the top of the other bar, substantially as set forth. 2nd. In apparatus for applying stay wires to wire fences, the combination of a suitable shank terminating in a handle at one end, and a slotted head at the other end, an open topped tube projecting laterally from and secured to said head for receiving and supporting a strand of the fence wires, a revoluble slotted disc for supporting a coil of stay wire, and means for revolving said disc and carrying the said coil of stay wire about said open topped tube through said disc, and thence around the supported strand of fence wire, substantially as set forth. 3rd. In apparatus for applying stay wires to wire fences, the combination of a suitable shank terminating in a handle at one end and in an enlarged annular slotted head at the other end, a yoke secured to said head, a central open topped tube secured to said yoke and extending back through the central opening in said head, a slotted small cog wheel having a slotted hub mounted on said open topped tube, and said wheel having an opening therethrough, a stud projecting outwardly from said wheel, a larger cog wheel journaled on said shank below the cog wheel first named, and in mesh with the latter, a lower small cog wheel also journaled on said shank and in mesh with the larger intermediate cog wheel, and an operating lever or crank arm rigidly secured to said lever cog wheel, substantially as set forth. 4th. In apparatus for applying stay wires to wire fences, the combination of a suitable shank terminating in a handle at one end and in an enlarged flat annular slot ed head at the other end, a yoke having projecting legs secured to said head, a central open topped tube secured to the apex of said yoke and extending back through the central opening in said head, a combined disc and cog wheel having a hub mounted on said open topped tube, the said disc cog wheel and hub being slotted from the centre to and through the peripheries thereof, and said disc and cog wheel having an opening for the passage of wire therethrough, a stud projecting outwardly from the disc face of said wheel, a revoluble anti-friction sleeve on said stud, a larger cog wheel journaled on said shank below the cog wheel first named, and in mesh with the latter, a lower cog wheel also journaled on said shank, corresponding in size with the upper cog wheel and in mesh with the intermediate cog wheel, and having an inclined slot in its inner surface, a spring-controlled stop pin for engagement with said slot, and an operating lever or crank arm rigidly secured to said lower cog wheel, substantially as set forth.

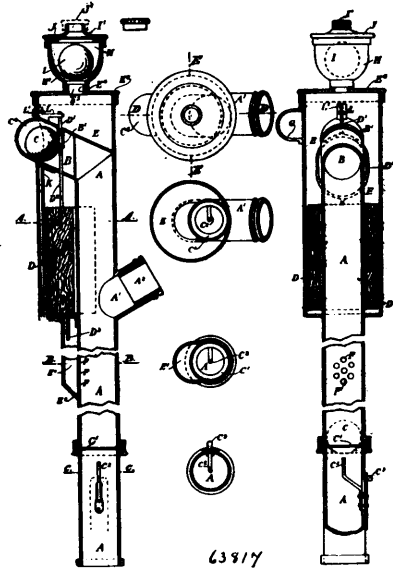
**No. 63,817. Barrel Racking Apparatus.**

(Appareil à clarifier pour tonneaux)

James John Marshall, Sydney, New South Wales, Australia, 11th September, 1899; 6 years. (Filed 4th October, 1898.)

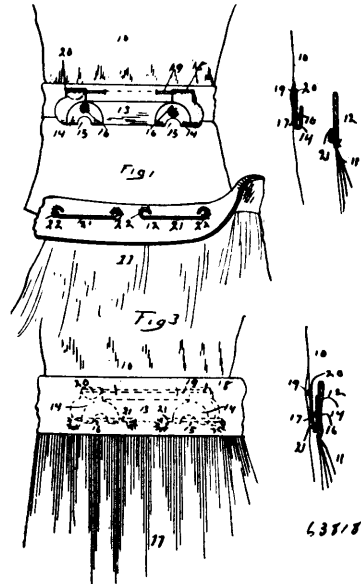
*Claim.*—1st. A barrel or cask racking apparatus, consisting of the combination of a filling tube having an inlet branch an angular extension pipe with an opening upon its upper side, a float chamber and cover, an extension chamber with openings into filling tube, a ball valve and seating, a float with brackets, guide rods and oval ring, a trigger, a cup-shaped vessel with float, ball valve, wire cage rubber seat and screwed cap, substantially as herein described. 2nd. A barrel or cask racking apparatus, consisting of the combina-

tion of a filling tube, a hinged flap valve and seating, a chamber having an inlet branch, a float chamber, an extension chamber with



openings into filling tube, a float with brackets, guide rods and catch, a plate or disc fitting around filling tube and an india rubber sleeve, all as shown, together with a cup-shaped vessel with float, ball valve, wire cage, rubber seat and screwed cap, lower end of the filling tube and trigger as shown, substantially as herein described.

**No. 63,818. Skirt Support. (Support de jupe.)**

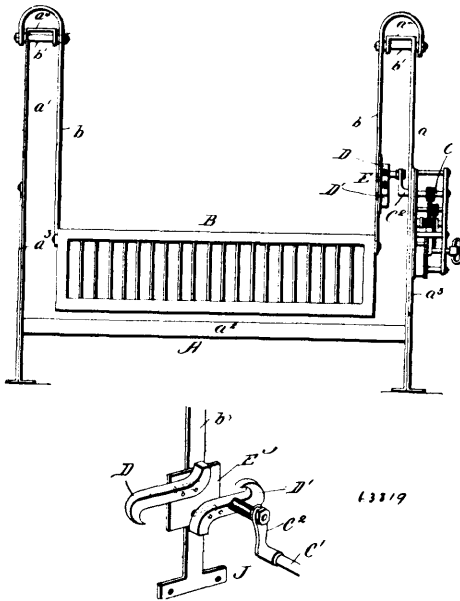


Mortimer Cahill, Chicago, Illinois, U.S.A., 11th September, 1899; 6 years. (Filed 22nd June, 1899.)

*Claim.*—1st. A skirt supporter, comprising three members, one of which is provided with a resilient pin and a guard therefor, whereby it may be attached to a waist, and two hooks extending upwards from its lower edge on its outer face, the bodies of the member and of the hooks being recessed or cut-away from below upward to an equal height, and other members, each secured to the inner face of the skirt band and adapted to respectively engage the hooks of the first-mentioned member and seat themselves within said hook, substantially as described. 2nd. A skirt supporter, comprising three members, one of which is provided with a resilient pin and a guard therefor whereby it may be attached to a waist, and two hooks extending upwards from its lower edge on its outer face, the bodies of the member and of the hooks being recessed or cut-away from below upward to an equal height, and the space between said bodies and said hooks being contracted immediately above said cut-away portions, and two other members, each secured to the inner face of the skirt band and adapted to respectively engage the hooks of the

first-mentioned member and to seat themselves within said hooks below the projections, whereby the last mentioned are rendered accessible to positive pressure to permit their being forced past said contracted portions to disengage them, substantially as described.

**No. 63,819. Swinging Cradle. (Berceau.)**

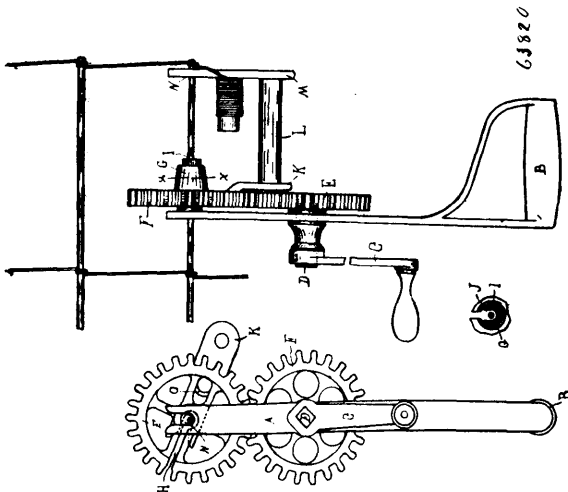


John Fletcher Grinnett, Boissevain, Manitoba, Canada, 11th September, 1899; 6 years. (Filed 14th June, 1899.)

*Claim.*—1st. In a swinging cradle, the combination with a frame, of a cradle mounted to swing therein, and a clock mechanism fixed to said frame and adapted to swing said cradle, substantially as described. 2nd. In a swinging cradle, the combination with a frame, of a cradle pivoted to swing in said frame, a clock mechanism mounted on said frame, a crank lever fixed on the end main spindle of said clock mechanism, and segments secured to said frame and adapted to be engaged by said lever, whereby the cradle is operated, substantially as described. 3rd. In a swinging cradle, the combination with a frame, of a cradle pivoted to swing in said frame, a clock mechanism mounted on said frame, a crank lever fixed on said frame, a plate secured to said frame, and segments adjustably mounted upon said plate and adapted to be engaged by said crank lever, whereby the cradle is operated, substantially as described.

**No. 63,820. Fence Stay Weaving Machine.**

(Machine à tisser les états de clotures.)

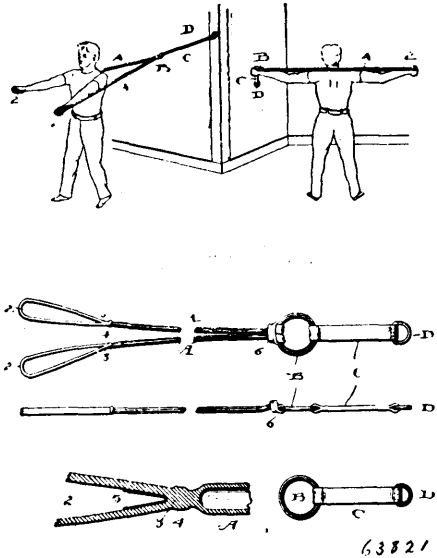


Charles Baxter, Waukesha, Wisconsin, U.S.A., 11th September, 1899; 6 years. (Filed 9th June, 1899.)

*Claim.*—The combination with a supporting bar provided with a notch in one end adapted to engage the line wire of a fence, a wheel journaled to said bar and provided with a slot corresponding to the notch in the bar, a laterally projecting frame carried by said wheel and provided with a wire engaging notch in its extreme end,

a spindle mounted in said frame in a position parallel to that of the line wire for holding the coil of stay wire, and suitable crank and gear mechanism for actuating the slotted gear wheel and frame, substantially as described.

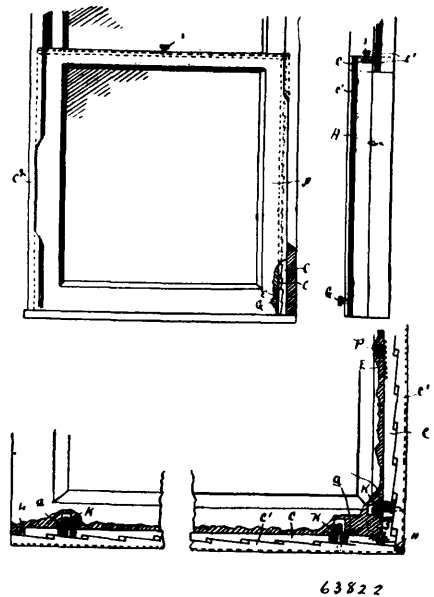
**No. 63,821. Exercising Device. (Appareil d'exercise.)**



Fenton E. Spink, Cleveland, Ohio, U.S.A., 11th September, 1899; 6 years. (Filed 8th June, 1899.)

*Claim.*—An exercising device for the body, arms and limbs consisting of an elastic strap or strand, means to engage one end thereof to a fixed object, a ring at the opposite end thereof, an elastic strap or strand provided with elastic handholds and secured by looping to the ring, substantially as set forth.

**No. 63,822. Sash Fastener. (Arrête croisée.)**

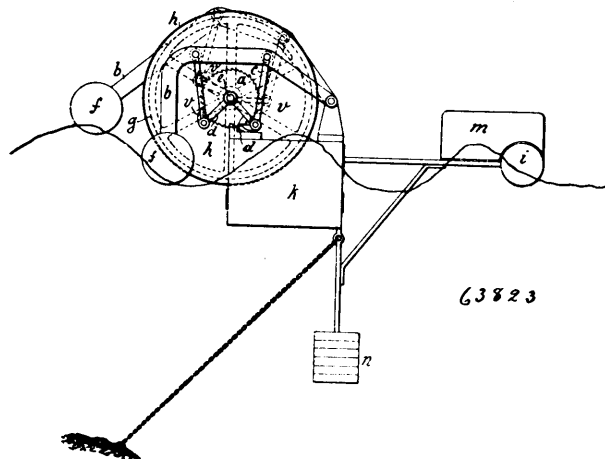


Myron Angel, San Luis, California, U.S.A., 11th September, 1899; 6 years. (Filed 2nd June, 1899.)

*Claim.*—1st. The combination with a door or window, of slidable strips disposed in pairs and having their contracting edges formed or provided with inclined surfaces, means whereby one strip is held against movement lengthwise, a toothed section on the other strip and the pinion engaging the same for operating the movable strip, pins fixed to the stationary strips and extending through slots in the other strip and springs on said pins and adapted to retract the stationary strips and allow both strips to move in unison. 2nd. The combination with a window or door, of strips sliding in channels made longitudinally from end to end in the edges of the door or

sash, said strips being disposed in their respective channels in pairs, and having the contracting edges formed with a series of inclines extending from end to end, means whereby one of the strips is held stationary, and mechanism by which the other is movable longitudinally with relation thereto, whereby the movement in one direction loosens the other strip and allows the sash or door to move freely, and movement in the opposite direction locks the outer strip against the casing to form a joint and prevents movement, and means whereby the adjacent ends of strips movable at right angles with each other are connected so that the movement of a horizontal strip is transmitted to and operates a vertical strip.

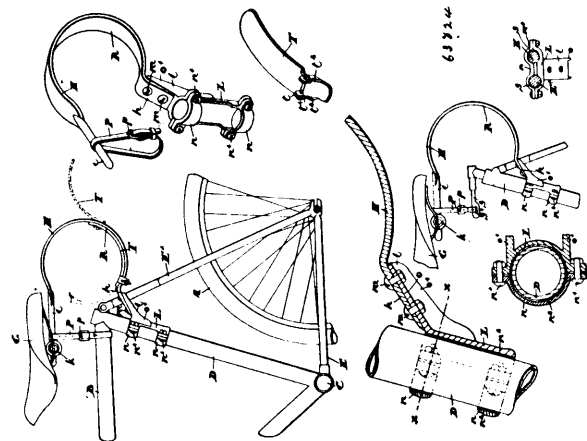
**No. 63,823. Wave Motor.** (*Moteur à vague.*)



Max. Gehre, Rathnear, Dusseldorf, (Germany, 11th September, 1899; 6 years. (Filed 19th April, 1899.)

*Claim.*—1st. A wave motor having ratchet gearing with floats *f*, pivoting on a point on a buoy *k*, characterized by the transmission shaft *e* of the motor being adapted to receive a rotation or impulse in one direction both on the upward as well as the downward movement of the floating body *f*, by two ratchet arms *d* being connected with the float *f*, in such a way that on the upward movement and also on the downward movement of the float, the two ratchet arms *d*, rotate or turn in opposite directions, substantially as described. 2nd. A wave motor such as described having a float *i* arranged on an arm adapted to prevent the upsetting of the buoy *k*, by its own weight in the one direction and by its buoyancy in the other direction, and having a vane or blade arranged on the float *i*, or between the float *i*, and the buoy to serve for imparting to the float the direction of the wind a weight being sunk as deep as possible beneath the buoy and suspended thereto to prevent the buoy canting, substantially as described.

**No. 63,824. Bicycle Saddle.** (*Selle de bicyclet.*)

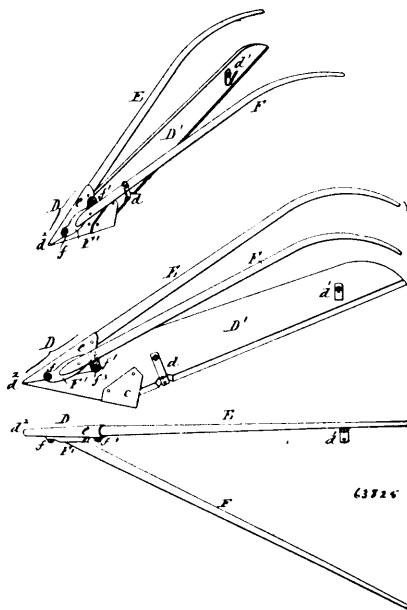


John S. Voltz, Buffalo, New York, U.S.A., 11th September, 1899; 6 years. (Filed 29th April, 1899.)

*Claim.*—1st. The combination with a bicycle saddle spring *H* having a downwardly, rearwardly, upwardly and forwardly curved circular or segmental portion *R* of flat cross section, and provided at its free end with a saddle stem *i* of cylindrical cross section, of a yoke *I* whereby said spring is adjustably secured to the bicycle frame, and a strap *P* connecting the bicycle frame with the saddle stem, and whereby the upward movement of the latter is limited,

substantially as set forth. 2nd. The combination with a bicycle saddle spring *H* having a downwardly, rearwardly, upwardly and forwardly curved, circular or segmental portion *R*, of flat cross section, a plate *T* of coincident curvature clamped inside thereof and adapted to be slid up and form practically an upward continuation of the lower forward and upward curved portion, of the spring and thereby form a luggage carrier and adapted to be reversed and clamped on the rear side of the loop *R* to form a mud guard, and a yoke whereby said spring is attached to the bicycle frame, substantially as set forth.

**No. 63,825. Grain Separator for Harvesting Machines.** (*Séparateur de grain pour machines à battre.*)

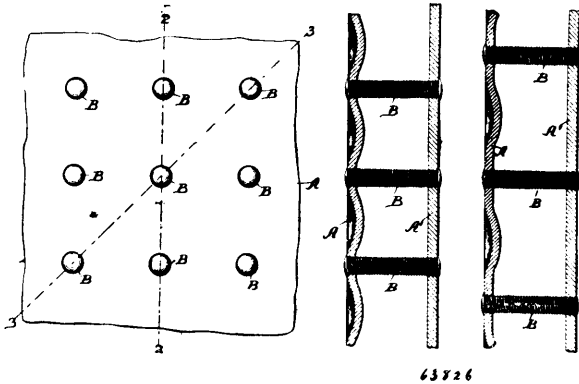


Alpheus Anderson Hamilton, Philadelphia, Pennsylvania, U.S.A., 11th September, 1899; 6 years. (Filed 26th May, 1899.)

*Claim.*—1st. The combination in a harvesting or reaping machine, of a tangled grain separator having an upturned nose extending a considerable distance beyond the cutter bar and having arms projecting rearwardly and extending to a point higher than the intersection of the tangled grain when upright so as to completely separate the tangled grain to be cut from the grain at the side of the machine, substantially as and for the purpose set forth. 2nd. An attachment for application to a harvester or reaper for separating entangled grain, of a head having a rearward extension, means for securing said extension to the machine and arms extending upwardly and rearwardly from the head and to a point higher than the intersection of the tangled grain when upright so that they will completely separate the tangled grain before it is cut by the cutter bar of the machine, substantially as described. 3rd. The combination in an attachment for harvesting or reaping machines for separating entangled grain, of a head adapted to be secured to the machine and having a socket on its under side to receive the nose of the machine, the under side of the head being bevelled from the said socket to the nose so that the machine can be adjusted to make a low cut, and arms projecting upwardly and rearwardly from the head to a point higher than the intersection of the tangled grain when upright so that they will completely separate the tangled grain before it is cut, substantially as described. 4th. The combination in an attachment for harvesting and reaping machines for separating entangled grain, of a head having a socket on its underside adapted to receive the nose of the permanent separator, a vertically arranged board extending rearwardly from the head and adapted to be secured on edge to the separator board of the machine, the under side of the head being bevelled from the socket up to the nose, and arms projecting rearwardly and upwardly from the head to a point higher than the intersection of the tangled grain when upright so that the tangled grain will be completely separated thereby before it is cut, substantially as described. 5th. The combination in an attachment for harvesting and reaping machines for separating entangled grain, of a head adapted to be secured to the separator board of the machine having a socket on its under side in which the nose of the separator board rests, the under side of the head being bevelled, a fixed arm projecting rearwardly and upwardly from the head and an adjustable bracket pivoted to the head at the outer side, means for securing the bracket after adjustment, and an arm attached to said bracket and extending rearwardly, said arms extending to a point higher than the intersection of the tangled grain when upright, so that the tangled grain will be completely separated thereby before it is cut, substantially as described. 6th. The combination in an

attachment for harvesting and reaping machines for separating entangled grain, of a head having a separator board extending rearwardly therefrom and means for securing said board to the separator board of the machine, a socket on the under side of the head to secure the nose of the separator board of the machine, said head being inclined upward to this nose to allow the machine to be adjusted for a low cut, a plate secured to the upper edge of the head forming the nose of the attachment and a socket, a rearwardly extending arm secured in the socket, a bracket pivoted at its forward end to the head and slotted, a bolt adapted to the slot in the bracket and a rearwardly extending arm secured to the bracket, said arms extending to a point higher than the intersection of the tangled grain when upright so that they will completely separate the tangled grain before it is cut, substantially as described.

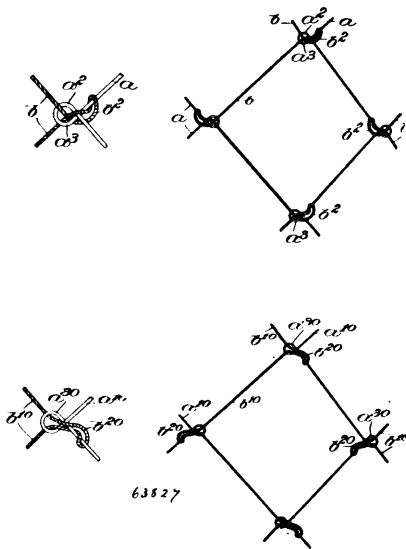
**No. 63,826. Steam Boiler.** (*Chaudière à vapeur.*)



Richard J. O'Neill, Bloomington, Illinois, U.S.A., 11th September, 1899; 6 years. (Filed 20th March, 1899)

*Claim.*—1st. In a steam boiler, the combination with the boiler walls and a series of stay bolts secured thereto in perforations therein, of a series of depressions from without inward formed in the boiler wall between the stay bolts, substantially as described. 2nd. In a boiler, the combination with a series of stay bolts, of a wall secured thereby having the portions between the bolts convex inward whereby the pressure from within outward tends to condense the metal and crowd the same against the stay bolts, substantially as described.

**No. 63,827. Netting.** (*Filet.*)



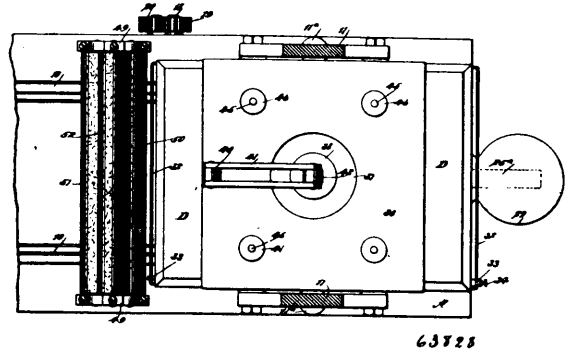
Ivers Shepard Adams, Cambridge, Massachusetts, U.S.A., 11th September, 1899; 6 years. (Filed 13th March, 1899.)

*Claim.*—1st. The herein described netting or like structure having the strands thereof connected by a knot, in which knot one strand is formed in a simple loop the members of which cross one above the other, and the other strand passes in through said loop and winds wholly around the lower member only thereof beyond the point where the members cross, and then passes out through the loop, substantially as described. 2nd. The herein described netting or like structure having the strands thereof connected by a knot, in

which knot one strand is formed in a single loop, the members of which cross one above the other, and the other strand extends through said loop above the upper member thereof and below the lower member thereof, being wound around said lower member beyond the loop and then passing out through said loop above the upper member and below the lower member thereof, substantially as described.

**No. 63,828. Hand Printing Press.**

(*Presse à imprimer à main.*)



Walter E. Van Valkenburgh, New York City, New York, U.S.A., 11th September, 1899; 6 years. (Filed 4th April, 1899.)

*Claim.*—1st. In a printing press, a carriage adapted to have sliding movement, a form adapted to receive type and arranged for locking engagement with the carriage, a platen located above the carriage and adapted for movement to and from said form, the platen tension controlled in an upward direction, a hand operated gear having rack and pinion connection with the carriage, a cam controlled with said gear, and a compressing device for the platen operated by the cam, as described. 2nd. In a hand printing press, the combination, with a base, a carriage held to slide upon the base, said carriage being provided with a rack upon its under surface, a pinion engaging with said rack, a support for the pinion, a driving shaft, a segment carried by said driving shaft and having connection with said pinion, and a cam connected with said segment, of a form adapted to receive type, means for locking the form to the carriage, a platen having movement to and from said form, said platen being tension controlled in an upward direction, a roller carrying arm adapted to compress the said platen and to be acted upon by said cam, and ink rollers located in the path of the form as the carriage is moved, as described. 3rd. In a printing press, a platen provided with a cushion and grooves at the edges of the cushion, said grooves being adapted to receive the edges of the paper or card board to be printed, and springs located within said grooves for the purpose set forth. 4th. In a hand printing press, the combination, with a carriage having a rack upon its under surface, a pinion adapted for engagement with said rack, a hand operated driving shaft, a toothed segment attached to the driving shaft and in engagement with said pinion, and a cam located upon said driving shaft, of a fixed table, a platen having spring support in said table, said piston being provided with means for holding the edge of the paper or card board to be printed, an adjusting screw carried by said platen, an arm pivoted upon the fixed table, and rollers carried by said arm, one of said rollers being arranged for engagement with the cam and the other roller with the adjusting screw of the platen, as specified. 5th. In a hand printing press, a carriage, a platen movable to and from the carriage, a form fitted to the carriage, a hand driving mechanism for said carriage, a cam carried by the hand controlled mechanism, said cam controlling the movement of the platen in direction of the form, an ink supply roller located at the rear of the platen, and ink distributing rollers in engagement with the supply roller, said ink distributing rollers being adapted to engage with the type as the carriage is moved, as described. 6th. In a hand driving mechanism for printing presses, a carriage provided with a rack, a driven shaft, pinions carried by the driven shaft, the innermost pinion being adapted for engagement with said rack and the outermost pinion being adapted for engagement with the intermediate pinion, a drive shaft adapted to be operated by hand, a toothed segment secured to the drive shaft, the teeth of the segment being adapted to engage with the teeth of the intermediate pinion, a base upon which the carriage moves, stop pins located near the forward end of said carriage, and lugs located upon the carriage, adapted for engagement with said stop pins, the stop pins being so placed that when engaged by the lugs on the carriage the carriage will be in position to support a bed of type beneath the platen of the press, as set forth.

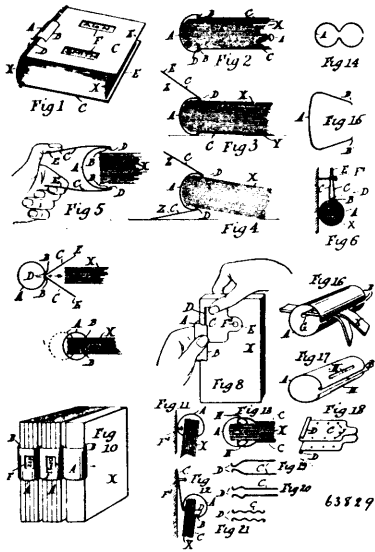
**No. 63,829. Binder.** (*Licuse.*)

Uriah Dudley, Drake, New South Wales, Australia, 11th September, 1899; 6 years. (Filed 19th January, 1899.)

*Claim.*—1st. In a clip or binder, the combination with a distensible spring body, of wings connected thereto for slipping purposes

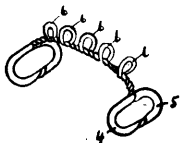
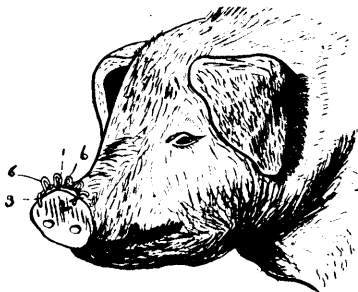


as set forth, and adapted to be turned up or reversed and used as handles and levers as before set forth. 2nd. In a clip or binder, the



combination with a distensible spring body, of loose wings articulated thereto so as to be capable of being turned up or reversed for the purpose specified and adjusted relatively to the spring body and removable as before set forth. 3rd. In a clip or binder, a distensible spring body and reversible wings, the said body having apertures for the passage therethrough of the inner edges of the said wings as before set forth.

No. 63,830. Hog Ring. (Anneau pour porcs)



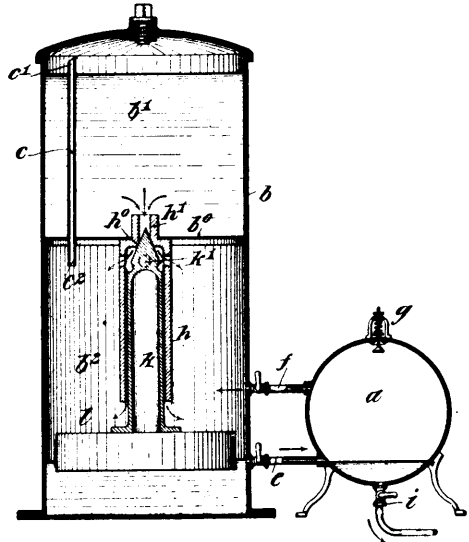
63830

Alva Dierwester, Culver, Missouri, U.S.A., 11th September, 1899; 6 years. (Filed 15th March, 1899.)

Claim.—1st. The herein described nose ring consisting of the central link section formed of two wires twisted together, one of said wires being so bent at intervals that a series of loops 6 will be provided, integrally formed open ring sections constituting terminals of said twisted wires, the extreme ends of the parts forming said ring sections being sharply bevelled and designed to partly overlap each other, substantially as specified and for the purpose set forth. 2nd. The herein described nose ring consisting of the open ring end sections, a link section uniting said open ring sections formed of two wires, one of said wires being provided with a series of loops located intermediate said ring sections and twisted into union with the other wire at points intermediate said loops, all arranged in a manner and for the purpose set forth.

No. 63,831. Regulator to Fix the Level of Liquid.

(Regulateur pour établir le niveau des liquides.)



63831

Kilian Grosswyler, Sihlstrasse 65, Zurich, Switzerland, 11th September, 1899; 6 years. (Filed 6th March, 1899.)

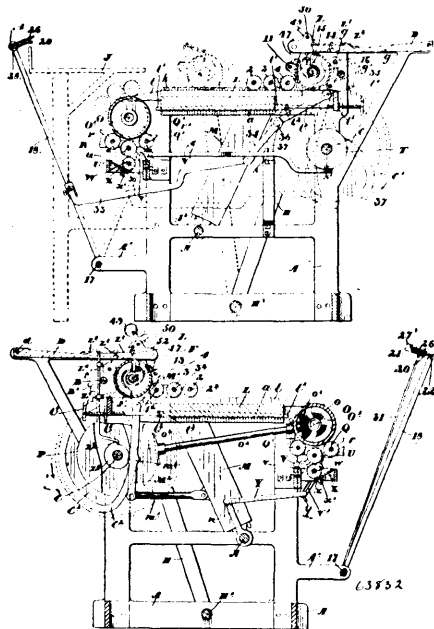
Claim.—1st. Apparatus for the automatic regulation of the level of liquid in a supply vessel so as to correspond to the consumption of liquid, characterised by a special vessel *b* with a receiving chamber *b*<sup>1</sup> above, containing the store of liquid, and a lower chamber *b*<sup>2</sup>, which two chambers are separated from one another by an hermetically closed partition *b*<sup>0</sup> and in which in the lower chamber *b*<sup>2</sup> in which the same level as that in the supply vessel is to be maintained, there is a float which is provided with a closing device for an opening in the aforesaid partition *b*<sup>0</sup>, for the exit of the liquid, and in which between the lower compartment *b*<sup>2</sup> and the upper space of the top compartment *b*<sup>1</sup> an air-pipe is arranged, so that the pipe projects above the highest level of the liquid in the upper or store chamber *b*<sup>1</sup>. 2nd. Apparatus for the automatic regulation of the level of liquid corresponding to the consumption of liquid in a vessel to be supplied with liquid, characterised by a special vessel *b* with upper receiving chamber *b*<sup>1</sup> taking up the store of liquid, and a lower chamber *b*<sup>2</sup>, which two chambers are separated from each other by a hermetically closed partition *b*<sup>0</sup> and in which a pressure equalizing pipe *c* is between the lower chamber and the upper space of the top chamber, and in the lower chamber a float with a guide *k* having a conical end *k*<sup>0</sup> which enters in the lower opening *h*<sup>0</sup> of the partition *b*<sup>0</sup>, and leaves the opening more or less free according to the level of liquid in the lower chamber. 3rd. Apparatus for the automatic regulation of the level of liquid in a supply vessel, so as to correspond with the consumption of the liquid, characterised by the provision of a special vessel *b* with an upper chamber *b*<sup>1</sup> receiving the liquid, and a lower chamber *b*<sup>2</sup>, which two chambers are separated from each other by a hermetically closed partition *b*<sup>0</sup> with a float in the lower chamber which is provided with a closing device for an opening in said partition, and with a pressure equalizing pipe *c* between the lower chamber and the top compartment of the upper chamber, and with two pipes leading from the lower compartment to the vessel to be supplied, of which the one pipe *c* serves for the flow of liquid, and connects both vessels with each other, and the other *f* serves for the equalizing of the pressure in the lower chamber *b*<sup>2</sup> with that in the vessel to be supplied.

No. 63,832. Printing Press. (Presse à imprimer.)

Frederick John Harbridge, Gravenhurst, Ontario, Canada, 11th September, 1899; 6 years. (Filed 8th March, 1899.)

Claim.—1st. In a printing press, the combination with the feeding table, of the gauging fingers located opposite the inner end of the table, the rods having bent ends pivotally supported, the springs normally pressing on the bent ends of the arms, so as to hold up the gauging fingers and means for intermittently overcoming the pressure of the springs, so as to press the fingers to the edge of the table, as and for the purpose specified. 2nd. In a printing press, the combination with the feeding table, of the gauging fingers located opposite the inner end of the table, the rods having bent ends pivotally supported, the springs normally pressing on the bent ends or arms, so as to hold up the gauging fingers, the rod extending upwards underneath the front end of the bent arms, suitable guides for supporting the same and the drop cam on the main shaft with which the bent end of the rod is arranged to engage, as and

for the purpose specified. 3rd. In a printing press, the combination with the feeding table, of the hollow cylinder journalled in



suitable bearing standards, means for imparting a rotary and reciprocating movement to the cylinder, a gripping bar extending from end to end of the hollow cylinder and provided with gripping fingers designed to extend through a slot in the cylinder and overhang one edge thereof and means for raising the gripping bar, so as to raise the fingers in order that they may be lowered to grasp the overhanging sheet at the edge of the feeding table, as and for the purpose specified. 4th. In a printing press, the combination with the feeding table, of the hollow cylinder journalled in suitable bearing standards, means for imparting a rotary and reciprocating movement to the cylinder, a gripping bar extending from end to end of the hollow cylinder and provided with gripping fingers designed to extend through a slot in the cylinder and overhang one edge thereof, means for raising the gripping bar so as to raise the fingers and means for lowering the gripping fingers so that they may grasp the edge of the overhanging sheet on the feeding table, as and for the purpose specified. 5th. In a printing press, the combination with the feeding table, of the hollow cylinder journalled in suitable bearing standards, means for imparting a rotary and reciprocating movement to the cylinder, a gripping bar extending from end to end of the hollow cylinder and provided with gripping fingers designed to extend through a slot in the cylinder and overhang one edge thereof, pins attached to or forming part of the ends of the gripping bar and extending through slots on the ends of the cylinder and means for raising and lowering the pins in the slots, as and for the purpose specified. 6th. In a printing press, the combination with the feeding table, of the hollow cylinder journalled in suitable bearing standards, means for imparting a rotary and reciprocating movement to the cylinder, a gripping bar extending from end to end of the hollow cylinder and provided with gripping fingers designed to extend through a slot in the cylinder and overhang one edge thereof, pins attached to or forming part of the ends of the gripping bar and extending through slots on the ends of the cylinder and the arms pivoted on a rod extending through the cylinder and provided with slotted ends through which the pins of the gripping bar extend and means for controlling the tilting of such arms, as and for the purpose specified. 7th. In a printing press, the combination with the feeding table, of the hollow cylinder journalled in suitable bearing standards, means for imparting a rotary and reciprocating movement to the cylinder, a gripping bar extending from end to end of the hollow cylinder and provided with gripping fingers designed to extend through a slot in the cylinder and overhang one edge thereof, pins attached to or forming part of the ends of the gripping bar and extending through slots on the ends of the cylinder and the arms pivoted on a rod extending through the cylinder and provided with slotted ends through which the pins of the gripping bar extend, a cross rod supported on the bearing standards of the cylinder, an arm loosely supported on the same and having an inclined inner end, which extends into proximity with the pin at one end of the gripping bar next the short arm on the end of the cylinder and designed to co-act therewith, as and for the purpose specified. 8th. In a printing press, the combination with the feeding table, of the hollow cylinder journalled in suitable bearing standards, means for imparting a rotary and reciprocating movement to the cylinder, a gripping bar extending from end to end of the hollow cylinder and provided with gripping fingers designed to extend through a slot in the cylinder and overhang one edge thereof,

pins attached to or forming part of the ends of the gripping bar and extending through slots on the ends of the cylinder and the arms pivoted on a rod extending through the cylinder and provided with slotted ends through which the pins of the gripping bar extend, a cross rod supported on the bearing standards of the cylinder, an arm loosely supported on the same and having an inclined inner end, which extends into proximity with the pin at one end of the gripping bar next the short arm on the end of the cylinder and designed to co-act therewith, and an arm supported on the cross rod and located at the opposite end of the cylinder and provided with an inclined end, a pin on the extended slotted bent arm at the opposite side of the cylinder designed to co-act with the inclined end of the arm on the cross rod when the cylinder is approaching the limit of its stroke toward the delivery table as and for the purpose specified. 9th. The combination with the cylinder and track for the inking rollers and the grippers adjustably held in the cylinder, of the bar provided with upwardly extending fingers located in the cylinder underneath the grippers, and having depending ends extending through holes in the cylinder and designed to come in contact with the track when the grippers are being raised as the cylinder approaches the limit of its stroke towards the delivery table, as and for the purpose specified. 10th. The combination with the cylinder and the spindle thereof, and the slidable standards supported on suitable guideways and means for imparting a reciprocating movement to the standards, of the eccentric sleeves extending through the standards and forming a bearing for the spindles and means for turning the sleeves to raise the cylinder, as and for the purpose specified. 11th. The combination with the cylinder and the spindle thereof and the slidable standards supported on suitable guide-ways and means for imparting a reciprocating movement to the standards, of the eccentric sleeves extending through the standards and forming a bearing for the spindles, an arm attached to or forming part of each sleeve and extending outwardly therefrom, a lateral projection to such arm designed normally to rest upon the top of the bearing standard and having a bearing at one end, a rod extending through such bearing and provided with a stop at the opposite end, and a guiding lug support for the rod on the frame, as and for the purpose specified. 12th. The combination with the cylinder and the spindle thereof and the slidable standards supported on suitable guideways and means for imparting a reciprocating movement to the standards, of the eccentric sleeves extending through the standards and forming a bearing for the spindles, a supplemental arm extending outwardly from the sleeve, and a rocking detent pivoted in the frame, a pin for controlling the movement of the rocking detent in one direction only and means for locking the detent at the upper end, as and for the purpose specified. 13th. The combination with the cylinder and the spindle thereof and the slidable standards supported on suitable guideways, and means for imparting a reciprocating movement to the standards, of the eccentric sleeves extending through the standards and forming a bearing for the spindles, a supplemental arm extending outwardly from the sleeve and a rocking detent provided with a notch at the upper end, a pin stop for the detent to allow of its movement in one direction only and a pivoted catch on the frame provided with a suitable end to engage the notch at the top of the rocking detent, as and for the purpose specified. 14th. The combination with a cylinder and suitable standards, of the arms pivoted in the standards and provided with rollers designed to press against the edges of the sheet on the cylinder, as and for the purpose specified. 15th. The combination with the inking rollers provided with laterally extending spindles and suitable supports for the rollers on the sides of the bed, of the swinging bar arms pivoted in the frame of the machine, the gear wheel on the main shaft provided with a suitable cam, a lever pivoted at the top and provided with a roller intermediate of its length extending into the cam, and a connecting rod connecting the bar arms with the bottom of the lever, as and for the purpose specified. 16th. The combination with the cylinder and delivery table, of the delivery arms suitably pivoted at the bottom of the frame and provided at the top with a cross rod, the gripping bar suitably pivoted on the cross rod, and provided with delivery gripping fingers and means for imparting a springing movement thereto from the cylinder to the outer end of the delivery table, as and for the purpose specified. 17th. The combination with the cylinder and delivery table, of the delivery arms suitably pivoted at the bottom of the frame and provided at the top with a cross rod, the connecting bars suitably pivoted on the cross rod and provided with delivery gripping fingers, springs extending over the upper and lower gripping bars, so as to normally cause them to close, a stop to limit the downward movement of the upper gripping bar and a rod extending downwardly into proximity to the pivot point of the delivery arms, a pin on the frame designed to act against the bent end of such rod and means for imparting a swinging movement thereto from the cylinder to the outer end of the delivery table, as and for the purpose specified. 18th. The combination with the cylinder and delivery table, of the delivery arms suitably pivoted at the bottom of the frame and provided at the top with a cross rod, the connecting bars suitably pivoted on the cross rod and provided with delivery gripping fingers, springs extending over the upper and lower gripping bars, so as to normally cause them to close, a stop to limit the downward movement of the upper gripping bar and a rod extending downwardly into proximity to the pivot point of the delivery arms, a pin on the frame designed to act against the bent end of such rod, a rod

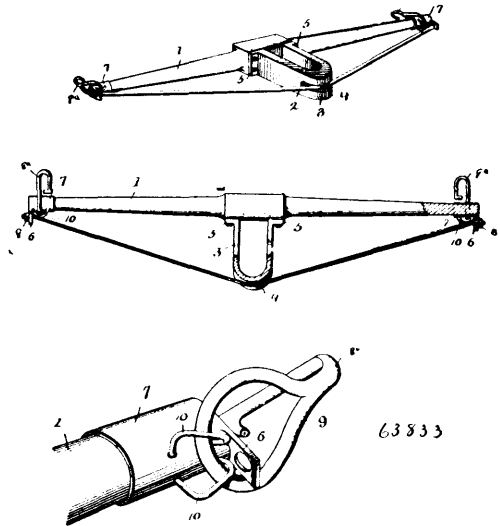
connected to the swinging arms at one end, a lever pivoted at the top on the frame and provided with a roller and pivotally connected to such rod at the opposite end, and a cam wheel provided with a suitable cam within which such roller is designed to have movement, as and for the purpose specified. 19th. In combination the cylinder, the standards therefor and end collars and brackets upon which they run, the cam projection on the collars, the delivery arms and gripping bars and spring held fingers and the pins secured beneath the end fingers and between which the cam on the collar is designed to pass, so as to separate the fingers to deliver the sheet, as and for the purpose specified. 20th. The combination with the bed of the machine having inclined grooves at the side, and side supports for such bed, of the tapered bars extending underneath the inclined grooves and means for adjusting such bars, so as to raise and lower the bed, as and for the purpose specified. 21st. The combination with the bed of the machine having inclined grooves at the side, and side supports for such bed, of the tapered bars extending underneath the inclined grooves, the collars on one end of the wedge-shaped bars, the spindle rotatably held in such collars and provided with threaded outer ends and the locking hand wheels and turning hand wheels secured on the outer ends, as and for the purpose specified. 22nd. The combination with the ink distributing roller provided with a suitable spindle supported in suitable bearings on the delivery end of the machine and the bevel pinion secured on such spindle, of the bevel wheel secured on the countershaft and the spindle supported in suitable bearings and provided with bevel wheels at each end and engaging with the bevel wheel on the countershaft and the bevel wheel on the spindle of the major inking roller, as and for the purpose specified. 23rd. The combination with the major ink distributing roller, of the minor roller situated beneath it and contacting with the major roller and provided with suitable end spindles, the slotted supporting brackets for such spindles and the grooved collars secured on the ends of the spindles, the bar extending outwardly from the bracket, the rocking bar provided with pins extending into grooves on the collars and means for imparting the requisite movement to such bar, as and for the purpose specified. 24th. The combination with the major ink distributing roller, of the minor roller situated beneath it and contacting with the major roller and provided with suitable end spindles, the slotted supporting brackets for such spindles and the grooved collars secured on the ends of the spindles, the bar extending outwardly from the bracket, the rocking bar provided with pins extending into grooves on the collars, a lever connected by a pin to one end of the rocking bar suitably pivoted in the frame, and having a pin in the opposite end, and a cam in the shaft provided with a peripheral groove into which such latter pin extends, as and for the purpose specified. 25th. The combination with the major ink distributing roller, of the minor central roller and the arms pivoted on the frame and supporting such roller at the free ends, and the bottom roller extending into the fountain and means for alternately bringing the central minor roller into contact with the bottom roller and the major roller, as and for the purpose specified. 26th. The combination with the major ink distributing roller, of the minor central roller and the arms pivoted on the frame and supporting each roller at the free ends, and the bottom roller extending into the fountain, the arms secured on the spindle of the lower roller and provided with an upward cam projection and means for swinging such arm on its pivot, so as to bring it underneath the supporting arms and raise such arms up intermittently, as and for the purpose specified. 27th. The combination with the major ink distributing roller, of the minor central roller and the arms pivoted on the frame and supporting such roller at the free ends, and the bottom roller extending into the fountain, the arms secured on the spindle of the lower roller and provided with an upward cam projection and a slotted lower end, an arm on the pivotal spindle of the swinging arms of the inking rollers and a link connecting such former arm to the slotted arm on the end of the spindle of the lower inking roller, as and for the purpose specified. 28th. The combination with the lower ink roller located in the ink fountain as specified and provided with an end spindle and ratchet pinion, of an arm loosely secured on the end of the spindle and provided with a suitable dog and means for imparting an oscillating movement to such arm, so as to cause the dog to rotate the ratchet wheel, as and for the purpose specified.

**No. 63,833. Whiffletree. (Palonnier.)**

William E. Carver, Castle Rock, Colorado, U.S.A., 11th September, 1899; 6 years. (Filed 25th January, 1899.)

*Claim.*—The combination with the whiffletree thimble, of the pair of stop loops rigidly united to the thimble on the rear side thereof and arranged in divergent positions so as to lie close together at the outer end of the thimble and be spread apart near the inner end of the thimble, and a trace hook having a ring adapted to loosely embrace the thimble, and fitted loosely in the divergent loops to swing therein and to slide lengthwise thereof, said trace hook

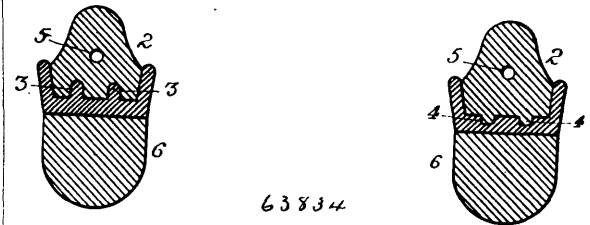
adapted to be limited in its rearward movement by impinging at two points against the loops and also against the thimble, and said



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rearward movement of the trace varying according as it fits in the inner or outer ends of said loops, substantially as described.

**No. 63,834. Vehicle Tire. (Bandage de vehicule.)**

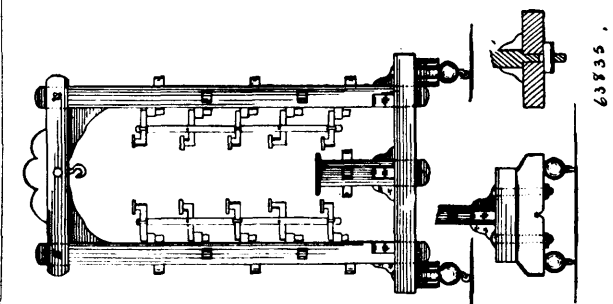


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James Christy jr., Akron, and Harry Everett Randall, Dayton, both in Ohio, U.S.A., 11th September, 1899; 6 years. (Filed 18th January, 1899.)

*Claim.*—An improved tire for vehicles, consisting of a metallic tire having a longitudinal channel in its outer periphery, with a flat bottom and slightly outwardly inclined sides, longitudinal ridges in the bottom of said tire, a solid rubber tire adapted to fit said channel having grooves therein to receive said ridges, in combination with a single wire embedded substantially centrally in said rubber tire midway between and slightly above said ridges, substantially as shown and described.

**No. 63,835. Flower Stand. (Jardinière.)**



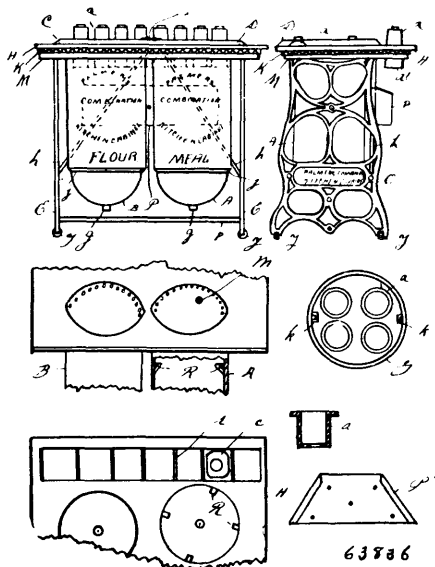
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Sarah C. Newell, Kansas City, Kansas, U.S.A., administrator of the estate of Loyson Myron Newell, 11th September, 1899; 6 years. (Filed 31st December, 1898.)

*Claim.*—1st. In a flower stand, the combination with a supporting foundation, the platform of said foundation having mortises and

attached to sills, of a high arch, the standards of said arch any desired height, having foot braces and adapted to receive the columns of brackets, substantially as shown and described. 2nd. In a flower stand, the combination with the supporting foundation, the platform of said foundation having mortises and attached to sills by movable bolts, of a high arch, movable draw pins and tenons securing arch in the supporting foundation and rendering said arch detachable, substantially as shown and described. 3rd. In a flower stand, the combination with the supporting foundation having sills and elevating foundation balls with tenons in sills, of a high arch adapted to receive columns of brackets, a connecting rod uniting the brackets of a column in a row and dividing their centres, substantially as shown and described. 4th. In a flower stand, the combination with the supporting foundation of a high arch having cross piece with corner brackets and a crowning centrepiece, mortises and tenons with movable keys attaching cross piece to supporting standards, substantially as shown and described. 5th. In a flower stand, the combination with the supporting foundation of a high arch, a central pedestal having foot braces and adapted to receive a centrepiece at top and brackets at sides, substantially as shown and described. 6th. In a flower stand, the combination with the supporting foundation of a central pedestal, draw pin and tenon securing through mortise of platform and making said pedestal detachable, substantially as shown and described.

**No. 63,836. Kitchen Cabinet.** (*Cabinet à cuisiner.*)



Almon A. Locker, assignee of Austin D. Palmer, both of Fort Worth, Texas, U.S.A., 12th September, 1899; 6 years. (Filed 24th June, 1899.)

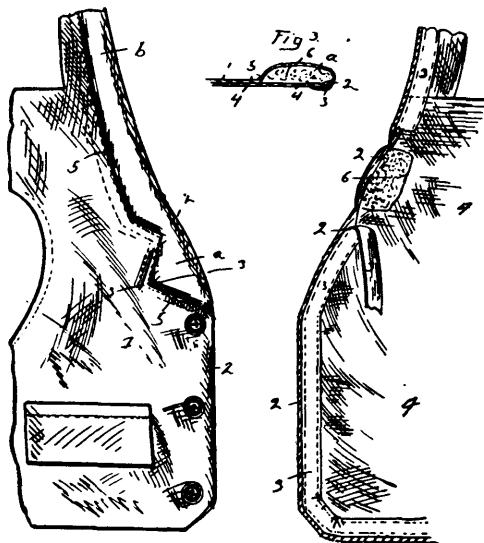
*Claim.*—1st. In a kitchen cabinet, the combination of a table provided with apertures, two bins mounted in said table, one of said bins having brackets attached to its interior wall, a tray mounted on said brackets, lids for said bins hinged to the top of said table, a number of pockets mounted in the apertures in the back part of said table, cans inserted in said pockets, and a box having a hanger attached thereto suspended on said table. 2nd. A kitchen cabinet, consisting of a board provided with moulding adapted to strengthen the same, said board having apertures therein, cast iron legs supporting said board, braces attached to said legs and to said board, cylindrical bins suspended in said apertures, and a box hanging on said braces. 3rd. In a kitchen cabinet, the combination of a board or platform having apertures therein and provided with moulding adapted to strengthen said board, cast iron legs supporting said board, braces attached to said legs and to said board, two cylindrical bins suspended in said apertures, lids for said bins hinged to said board, brackets attached to the interior wall of one of said bins, a tray mounted on said brackets, a number of pockets suspended in the rear part of said board, cans inserted in said pockets, and a box hanging on said braces.

**No. 63,837. Vest.** (*Veste.*)

Joseph G. Ewing and John D. Peoples, both of McDonald, Pennsylvania, U.S.A., 12th September, 1899; 6 years. (Filed 24th June, 1899.)

*Claim.*—As an improved article of manufacture, a vest having its cloth front turned over and sewed down, a piece of inelastic fabric, which covers the lap of the cloth, and is sewed to the latter and the lining along its respective edges, a line of stitching which unites the

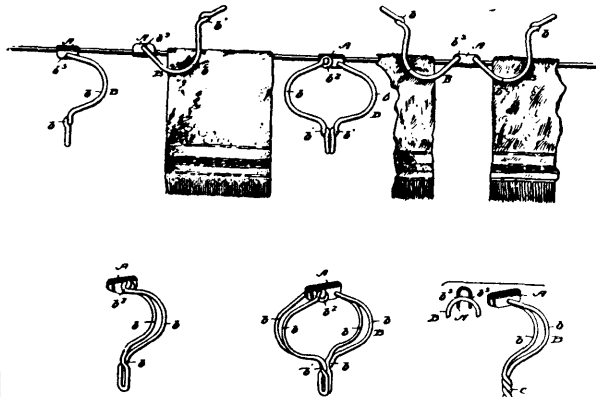
cloth and lining upon a line following the contour of an ordinary folded lapel, and a padding inserted in the pocket thus formed,



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whereby a swell is formed on the face of the vest, to simulate a folded lapel, as shown and described.

**No. 63,838. Clothes Pin.** (*Epingle à linge.*)



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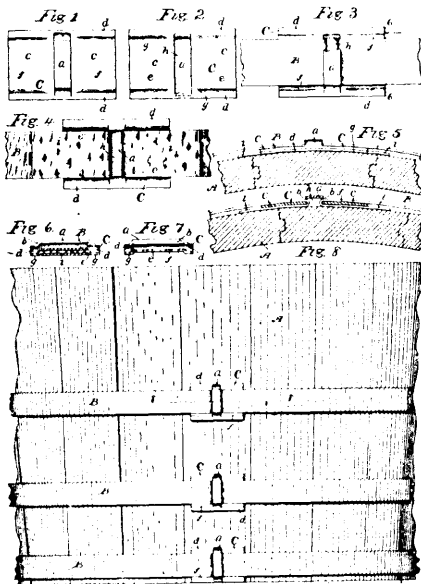
William Isaac Fee Harden and Irvin Buck, both of Hartford, Kansas, U.S.A., 12th September, 1899; 6 years. (Filed 23rd June, 1899.)

*Claim.*—1st. As a new article of manufacture, the clothes pin, consisting of a sleeve or saddle adapted to freely slide and turn on the clothes line, and the invertible clothes pin proper, pivoted to said sleeve and having its line or clothes engaging jaws arranged to close up to said sleeve adapted to be invertibly applied to the articles on the line, and to move with the saddle when the latter is turned or moved on the line, substantially as set forth. 2nd. As a new article of manufacture, the clothes pin consisting of a sleeve or saddle adapted to freely slide and turn on the clothes line, and the invertible clasp or pin pivoted to said sleeve, the same consisting of a single or continuous piece doubled upon itself, with the free ends of the jaws thus formed, pivoted in said sleeve or saddle the portions of said jaws twisted one upon the other, substantially as set forth. 3rd. As a new article of manufacture, the clothes pin consisting of the sleeve or saddle adapted to freely slide and turn on the clothes line, and a plurality of invertible clasps or pins proper, pivoted to said sleeve or saddle and each consisting of parallel jaws arranged close up to said sleeve with their outer connected end portions twisted and terminating in a loop, substantially as set forth. 4th. As a new article of manufacture, the clothes pin consisting of a sleeve or saddle adapted to freely slide and turn on the clothes line, and the invertible pin or clasp formed of a single or continuous piece doubled upon itself, with the inner ends of the jaws thus formed pivoted to said sleeve or saddle and the outer ends of said jaws twisted one upon the other and terminating in a loop, substantially as set forth. 5th. As a new article of manufacture

the clothes pin consisting of a sleeve or saddle adapted to freely slide and turn on the clothes line and produced of a plate having formed therein a longitudinal central groove or gutter and having an overlapping plate closing the otherwise open slide of its said groove, and the invertible clasp or pin proper, with its jaws pivoted at their inner ends in said sleeve or saddle, the outer ends of said jaws twisted one upon the other and terminating in a loop, substantially as set forth. 6th. As a new article of manufacture, the clothes line and attached clothes pin, consisting of a sleeve or saddle adapted to freely slide and turn thereon, and the invertible clasp or pin, proper, produced of a single or continuous piece doubled upon itself, and having its line or clothes engaging jaws arranged close up to the sleeve, and having its inner ends pivoted to said saddle or sleeve, the outer connected ends of said jaws being twisted one upon the other and terminating in a loop, substantially as set forth. 7th. As a new article of manufacture, the clasp or pin as described, comprising the saddle or sleeve and the pin, proper, loosely connected to said saddle, but hinged thereto to move therewith on the line and having its line or clothes engaging jaws arranged close up to said sleeve, said sleeve or saddle adapted to receive and permit the insertion therethrough of a fastening to effect its use as a clothes hook, substantially as set forth.

**No. 63,839. Apparatus for Hooping Wooden Vessels.**

(Appareil pour encerler les vaisseaux en bois.)



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The Firm of Weaver, Palmer & Richmond, assignees of Katherine Clarke, all of Rochester, New York, U.S.A., 12th September, 1899; 6 years. (Filed 6th June, 1899.)

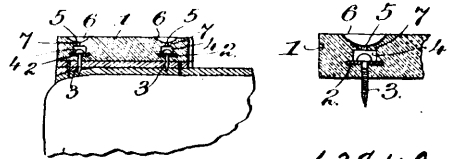
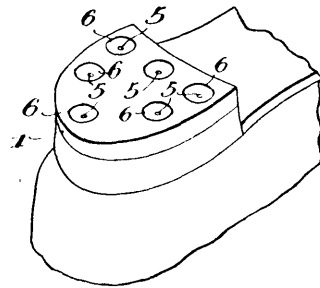
*Claim.*—1st. The combination in a device for hooping vessels, of a metal strip or hoop to encircle the vessel, with a metal holder for the ends of the hoop, formed with an opening in which to receive the ends of the hoop, and a raised part or bridge to cover said opening, substantially as specified. 2nd. In a device for hooping vessels, the combination of a metal strip for encircling the vessel, with a metallic perforated holder for receiving the ends of the hoop, the holder being formed with chambers or depressions on its surface next the vessel, for inclosing the returned ends of the hoop, substantially as described. 3rd. The rectangular connecting piece *c*, having a central transverse opening *h*, with a raised part *e* at either side of said opening, and down turned edges *d d*, substantially as shown for the purpose specified.

**No. 63,840. Heel. (Talon.)**

The O'Sullivan Brothers, assignees of Hemphrey O'Sullivan, all of Lowell, Massachusetts, U.S.A., 12th September, 1899; 6 years. (Filed 19th May, 1899.)

*Claim.*—1st. A cushion heel of elastic material provided with a plurality of nail or screw head chambers adapted to receive the heads of the nails or screws to secure said heel to the body of the shoe, substantially as described. 2nd. A cushion heel of elastic material, provided with a plurality of nail or screw head chambers, and a plurality of small burrs or washers, adapted to receive nails or screws to secure said heel to the body of said shoe, substantially as described. 3rd. A cushion heel of elastic material provided with a plurality of small burrs or washers embedded in the body of the heel and adapted to receive nails or screws to secure said heel to the body of said shoe, substantially as described. 4th. A cushion heel of elastic material provided with a plurality of nail or screw head

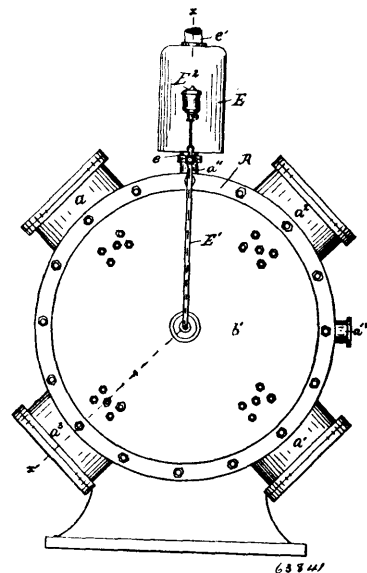
chambers and a plurality of suction recesses in the tread surface of the heel and separated from the nail or screw head chambers by



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projecting lips, substantially as described. 5th. A cushion heel of elastic material provided with a plurality of nail or screw head chambers, a plurality of suction recesses in the tread surface of the heel and separated from the nail or screw head chamber by protecting lips, and a plurality of small burrs or washers adapted to receive nails or screws to secure said heel to the body of the shoe, substantially as described. 6th. A cushion heel of elastic material provided with a plurality of nail or screw head chambers, a plurality of suction recesses in the tread surface of the heel and separated from the nail or screw head chamber by protecting lips, and a plurality of small burrs or washers embedded in the body of the heel and adapted to receive nails or screws to secure said heel to the body of the shoe, substantially as described.

**No. 63,841. Engine. (Machine à vapeur.)**



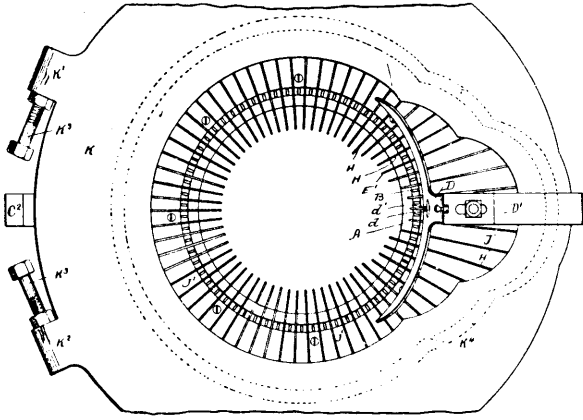
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The Isbell Porter Company, assignee of Oscar Vezin, all of New York City, New York, U.S.A., 12th September, 1899; 6 years. (Filed 23rd March, 1899.)

*Claim.*—In a multiple cylinder engine, comprising an engine body bearing the several cylinders and containing a chamber in which the crank of the shaft common to all the cylinder pistons has play and through which the exhaust steam from the several cylinders circulates, together with the crank and its shaft provided with a lubrication duct and passages leading to the periphery of the crank, the combination therewith, of an auxilliary chambers having an inlet

communicating with the exhaust aperture of said crank chamber and interiorly adapted to separate from the water vapour and therein collect oil carried thereunto from said crank chamber by the exhaust steam, together with a tube establishing communication between the lower part of said auxiliary chamber and said shaft duct, whereby oil carried by exhaust steam from the crank chamber will be returned to the crank bearing, and such circulation of the oil within the engine will be automatic and continuous and will effect the interrupted lubrication of the crank bearing.

**No. 63,842. Knitting Machine.** (*Machine à tricoter.*)

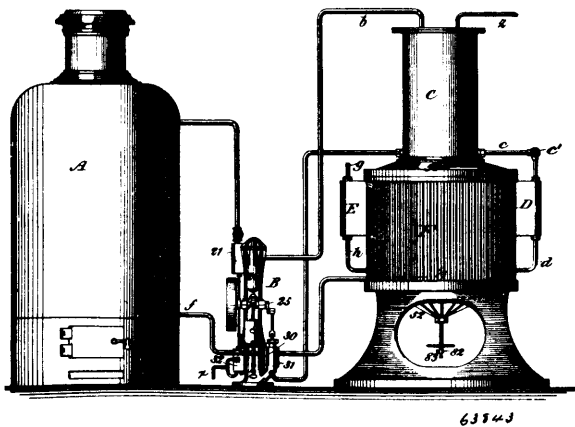


Frederic C. Rehm, Chicago, and Elias Frank and Isador Frank, both of Detroit, Michigan, U.S.A., 12th September, 1899; 6 years. (Filed 20th February, 1899.)

*Claim.*—1st. The combination in a knitting machine, with the needles, of a yarn guide for delivering a stitch thread to the needles, movable loopers adapted to be projected towards and beyond the needles, means for actuating said loopers and holding them, with the loop thread, in their inward position during the formation of stitches in the stitch thread, a yarn guide for delivering a loop thread to the loopers, movable holders independent of the loopers for holding the fabric down, and means for actuating the holders separately from the loopers, substantially as specified. 2nd. A knitting machine for producing looped fabric comprising the combination of the needles, radially sliding holders independent of the loopers, mechanism for operating said loopers and holders separately, and means for supplying independent threads to the needles, substantially as specified.

**No. 63,843. Liquefaction of Aeriform Fluids.**

(*Liquéfaction des fluides aëriiformes.*)



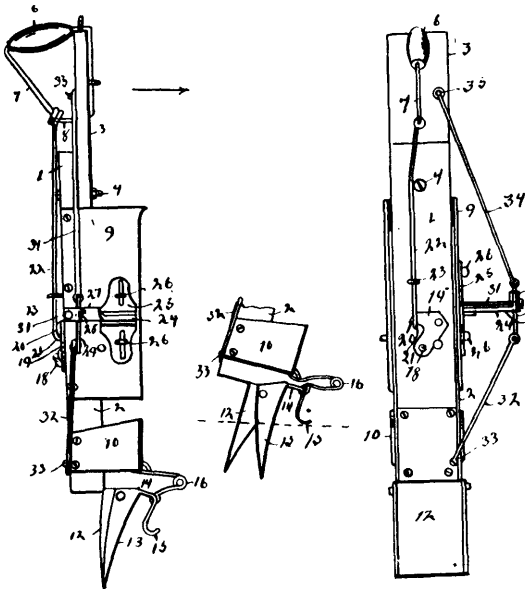
Oscar Patric Ostergen and Moriz Burger, both of New York City, New York, U.S.A., 12th September, 1899; 6 years. (Filed 17th March, 1899.)

*Claim.*—1st. The process of refrigerating or liquefying aeriform fluid, which consists in subjecting it to successive and increasing cooling actions of expanded aeriform fluid and insulating each successive step in said cooling actions by that preceding it, substantially as described. 2nd. In a condenser for refrigerating and liquefying aeriform fluid, the combination of an expanding chamber and a series of cooling channels, each successive channel being of lower temperature than, and arranged within, the channel preceding it, substantially as described. 3rd. In a condenser for refrigerating and liquefying aeriform fluid, the combination of an expanding

chamber and a series of cooling channels communicating with each other, each successive channel being of lower temperature than, and arranged within, the channel preceding it, substantially as described. 4th. A condenser for an air liquefying apparatus having two concentric spiral channels, one for incoming air under pressure the other for expanded air, said channels being connected at the centre of the apparatus so that air in the former expands into the latter and an intermediate channel for the passage of air to be liquefied. 5th. A condenser for an air liquefying apparatus having two concentric spiral channels, one a gradually contracted channel for incoming air under pressure, the other a gradually expanding channel for expanded air, said channels being connected at the centre of the apparatus so that air in the former expands into the latter and an intermediate channel for the passages of air to be liquefied. 6th. A condenser for an air liquefying apparatus having two concentric spiral channels, one for incoming air under pressure the other for expanded air, said channels being in communication with each other at the centre of the apparatus through suitable ports and valves so that air in the former expands into the latter, and an intermediate channel for the air to be liquefied. 7th. An apparatus for producing liquefied air or gas, consisting of a condenser provided with an ingoing spiral channel for compressed air and an outgoing spiral channel concentric therewith and connected thereto and into which said air is expanded, an intermediate channel for drawing in air to be liquefied, an air compressor for drawing off the expanded air, a cooler for cooling the air compressed in the compressor, a central pipe provided with ports for the compressed air and the expanding outgoing air respectively and a port for drawing off the liquefied air. 8th. A condenser for an air liquefying apparatus consisting of two or more spiral channels running from the periphery to the centre, and from the centre to the periphery alternately, the alternate channels carrying the one ingoing currents and the other outgoing currents, and means for drawing off the liquefied air from the centre of the apparatus. 9th. A condenser for an air liquefying apparatus consisting of a closed vessel having three metallic sheets wound in parallel spirals adapted to form three channels for the ingoing cooled and compressed air, the outgoing expanded air and the air to be liquefied respectively, a central chamber connecting the two first mentioned channels and a valve nozzle for drawing off the liquefied air from the last mentioned channel. 10th. A condenser for an air liquefying apparatus consisting of a closed vessel having two metallic sheets wound in parallel spirals adapted to form two channels, the one for ingoing cooled and compressed air, and the other for outgoing expanded air, and means for drawing off the air liquefied in the centre of the apparatus. 11th. In an apparatus for liquefying air, the combination of a hermetically closed condenser, having spiral partitions disposed therein forming two channels, a pipe disposed in said condenser and provided with ports, means for opening and closing said ports, a pipe for supplying cooled and compressed air to one of said channels, a pipe connected to the other channel for drawing off the expanded air, and means disposed at the bottom of said condenser for drawing off the liquefied air and conducting it into suitable receivers. 12th. A condenser for an air refrigerating or liquefying apparatus consisting of a closed vessel having a number of spiral tubes or pipes superposed upon each other carrying currents in opposite directions and themselves forming the walls of a spiral channel formed between the coils of said spiral tubes or pipes and adapted to carry other currents. 13th. In a condenser for an air or gas refrigerating and liquefying apparatus, the combination of two spiral concentric channels, one arranged above the other in the same vertical plane, one of said channels arranged to carry the ingoing currents of aeriform fluid, and the other of said channels arranged to carry the outgoing currents of expanded fluid, another spiral channel arranged intermediate of the coils of the first-mentioned spiral channels, and arranged to carry outgoing currents of further expanded fluid, a plurality of expansion chambers with which said channels are connected, and connections between said expansion chambers, substantially as specified. 14th. In a condenser for an air or gas refrigerating and liquefying apparatus the combination of two spiral concentric channels, each comprising a series of spiral coils, the coils of each series being arranged alternately with each other and in the same vertical plane, and another spiral channel arranged intermediate of the coils of the first-mentioned spiral channels, one of said channels arranged to carry the ingoing currents of aeriform fluid, and the others of said channels arranged to carry the outgoing currents of expanded aeriform fluid, a plurality of expansion chambers with which said channels are connected, and connection between said expansion chambers, substantially as specified. 15th. In a condenser for an air or gas refrigerating and liquefying apparatus the combination of two series of spiral channels consisting of coils, the coils of each series arranged alternately with each other, a spiral channel arranged intermediate of the coils of the first-mentioned spiral channels, a plurality of expansion chambers with which the said channels are connected, and valves controlling the connection between the said expansion chambers, substantially as specified. 16th. In a condenser for an air or gas refrigerating and liquefying apparatus, the combination with a spiral channel for incoming currents of aeriform fluid under pressure and a plurality of expansion chambers, connected together, and with one of which the inner end of said channel is connected, of a plurality of spiral channels concentric with the first mentioned spiral channel, for outgoing expanded air of successively lower pressure, said spiral channels being connected with successive

expansion chambers, substantially as specified. 17th. In a condenser for an air or gas refrigerating apparatus, the combination with a spiral channel for incoming current of aeriform fluid under pressure, a plurality of chambers, connected together, and with one of which the inner end of said channel is connected, and valves for controlling the connection between the said expansion chambers, of a plurality of spiral concentric channels with the first-mentioned spiral channel for outgoing expanded gas of successively lower pressures, said spiral channels being connected with successive expansion chambers, and means whereby said air or gas may be collected as liquefied and drawn off when desired, substantially as specified. 18th. In an apparatus for refrigerating and liquefying gas or air the combination with a spiral channel for incoming currents of aeriform fluid under pressure, a plurality of expansion chambers connected together, and with one of which the inner end of said channel is connected, and a plurality of spiral channels concentric with the first mentioned spiral channel for outgoing gas or air of successively lower pressures, said spiral channels being connected at their inner ends with successive expansion chambers of a system of compressors and coolers whereby the expanded gas or air is conducted away from the last-mentioned channels, compressed and cooled, and returned to the first-mentioned channel, and means for compressing and cooling fresh gas or air to take the place of that liquefied, substantially as specified. 19th. In a condenser for an air or gas refrigerating and liquefying apparatus the combination with a series of spiral channels for incoming currents of compressed aeriform fluid, of a series of spiral channels for outgoing currents of expanded aeriform fluid, the said channels carrying the outgoing currents being arranged to completely surround the channels carrying the incoming currents, and a plurality of expansion chambers connected together, and to the inner ends of the several channels, substantially as set forth. 20th. In a condenser for an air or gas refrigerating and liquefying apparatus, the combination of a stand pipe, a central collector, a series of spiral coils connected at their outer ends with the stand pipe and at their inner ends with the collector, an expansion chamber, a communication between the collector and the expansion chamber, another series of spiral coils arranged alternately with the first series, and in the same vertical plane therewith, said coils being connected at their inner ends with said expansion chamber and at their outer ends with a common return pipe, another expansion chamber, communicating with the aforesaid expansion chamber, and another spiral channel arranged intermediate of each turn of the spiral coils, the inner end of said channel being connected to the last-mentioned expansion chamber, substantially as specified.

**No. 63,844. Potato Planter.** (*Semoir à patates.*)



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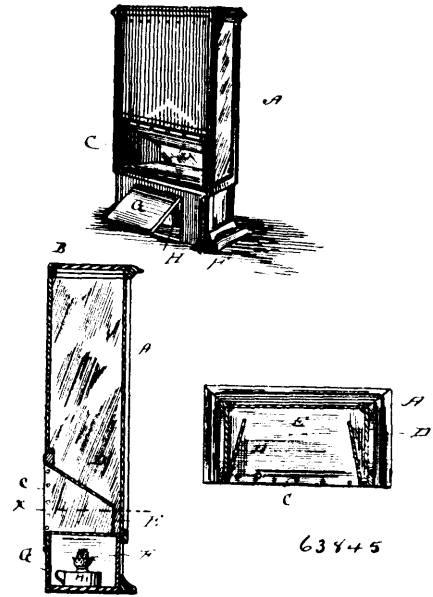
Edward Frederick Hener, Wantoma, Wisconsin, U.S.A., 13th September, 1899; 6 years. (Filed 25th May, 1899.)

*Claim.*—1st. A potato planter comprising a staff, a hopper fixed to the frame, a slide reciprocating parallel with said staff, opener blades secured to the lower end of said staff, a transverse cutter blade, and a transverse valve mounted in said hopper, and operatively connected to said slide, substantially as and for the purpose set forth. 2nd. A potato planter comprising a staff, a slide mounted thereon, and a hopper fixed thereto, in combination with a cutter blade adjustably mounted in said hopper, a valve pivoted in said hopper below said blade, and means for simultaneously operating said slide, cutter blade and valve, substantially as set forth. 3rd. A potato

planter comprising a staff, a reciprocating slide mounted on said staff, a hopper fixed to said staff, a cutter blade having a transverse movement in said hopper, and means whereby the reciprocating movement of the slide will impart a transverse movement to the cutter blade, substantially as described. 4th. A potato planter comprising the staff 1, the slide 3, the opener blade 12, the guide 10, and the hopper 9 carried by said staff, the opener blade 13 pivoted to said blade 12, the spring actuated valve 17, and the adjustable cutter blade 24 operatively connected to said slide 3, substantially as set forth.

**No. 63,845. Peanut Vending Case.**

(*Caisse de vente de pistache.*)

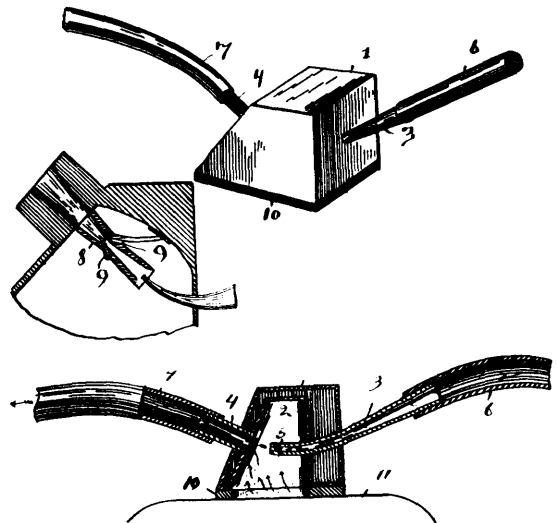


63845

Clarence O. Luce, Plainfield, Wisconsin, U.S.A., 13th September, 1899; 6 years. (Filed 27th May, 1899.)

*Claim.*—A peanut vending case consisting of a casing having a transparent front and sides and an open top, a door fitted in said top, a back terminating above the bottom, converging partitions extending from the back terminating a short distance from the front, a heater fitted snugly to the bottom of the case and having a door in its rear side to admit an oil stove or lamp.

**No. 63,846. Dust Collector.** (*Ramasse poussière.*)



63846

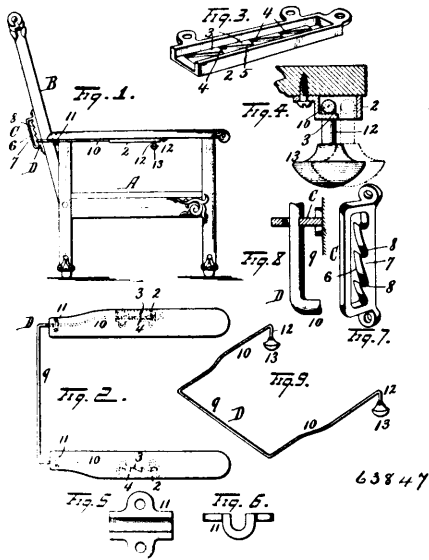
Charles Robken, Argenta, Arkansas, U.S.A., 13th September, 1899; 6 years. (Filed 27th May, 1899.)

*Claim.* 1st. In a dust collector for cleaning upholstery and the like, the combination with a cup shaped air chamber of an air supply



pipe, and an air discharge pipe supported in the walls of the air chamber, and having their open ends located opposite to each other, whereby the air from the supply is discharged directly into the discharge pipe, substantially as set forth. 2nd. In a dust collector for cleaning upholstery, or the like, the combination with a cup shaped air chamber, air discharge and supply pipes, communicating with the interior of the chamber, respectively, and oppositely located with respect to each other, a nozzle upon the end of the supply pipe opposite the discharge pipe, and an intermediate tube provided with apertures, and located between the nozzle and the discharge pipe, substantially as set forth. 3rd. In a dust collector for cleaning upholstery or the like, the combination with a cup shaped chamber and suction creative apparatus communicating with the interior thereof, of a resilient strip or buffer surrounding the open side of the chamber and designed to be compressed by the force of the suction surface to be operated upon to form a seal, substantially as specified.

**No. 63,847. Chair. (Fautuil.)**

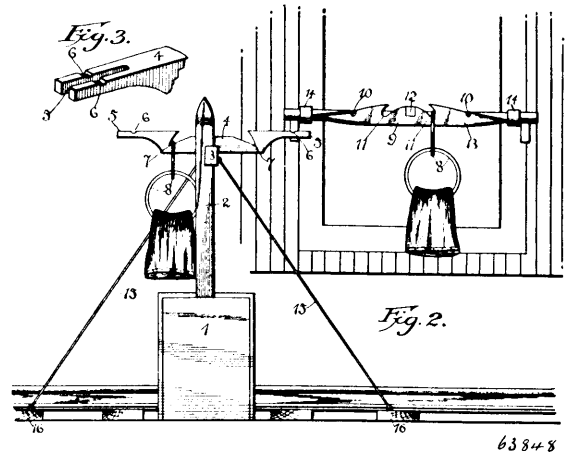


William H. O'Keefe, Lockport, New York, U.S.A., 13th September, 1899; 6 years. (Filed 31st May, 1899.)

*Claim.*—1st. The combination with a chair body and a back hinged thereto, of a ratchet bar secured to the chair body at each side thereof, ratchet bars secured to the chair back at each side thereof and a yoke extending across said back, engaging the ratchet bars thereon and having teeth at the free ends of its side bars adapted to engage the ratchet bars secured to the chair body, substantially as described. 2nd. The combination with a chair body and a back hinged thereto, of ratchet bars secured to the chair body, ratchet bars secured to the chair back, a yoke extending across the chair back and engaging the ratchet bars thereon, teeth at the free ends of the side bars of said yoke to engage the ratchet bars on the chair body and clips secured to the chair body through which the side bars of the yoke pass, substantially as set forth. 3rd. The combination with a chair body and a back hinged thereto, of slotted brackets secured to the chair back, a ratchet bar in each slotted bracket, a yoke extending across the chair back, passing through said slotted brackets and engaging said ratchet bars and means for adjustably and removably connecting the side bars of said yoke to the chair body, substantially as set forth. 4th. The combination with a chair body and a chair back hinged thereto, of ratchet bars secured to the under face of the side rails of the chair body, ratchet bars secured to the upright rails of the chair back at points which are normally in line with the side rails of the chair, rods connected with the ratchet bars on the back and with the ratchet bars on the side rails and clips through which said rods loosely pass, said clips being secured to the under faces of the side rails of the chair, substantially as set forth. 5th. The combination with a chair body and a back hinged thereto at points below the siderails of the chair, of ratchet bars secured to the side rails. brackets having slots and ratchet bars therein, secured to the chair back, a yoke extending across the chair back, passing through the slots in said brackets and engaging the ratchet bars therein, teeth at the free ends of the parallel bars of said yoke adapted to engage the ratchet bars secured to the side rails. handles or knobs on said side bars of the yoke and clips secured to the rear bars of the chair through which said side bars of the yoke pass, substantially as set forth. 6th. The combination with a chair body and a back hinged thereto, of slotted brackets having ratchet bars secured to the chair back, slotted boxes having ratchet bars secured to the side rails of the chair, a yoke passing through the slotted brackets and engaging the ratchet bars

therein, teeth at the free ends of the parallel bars of the yoke, said free ends of the parallel bars being adapted to enter said boxes and the teeth to engage the ratchet bars therein, and knobs at the free ends of said teeth, substantially as set forth.

**No. 63,848. Mail Bag Catcher. (Attrape-sac de maille.)**



Ira F. J. McKinstler, Grayson, Kentucky, U.S.A., 13th September, 1899; 6 years. (Filed 31st May, 1899.)

*Claim.*—1st. In combination, a suitable standard and arm, having a cross arm with bifurcated ends and rings, one of which lies between the forked ends, the second ring standing on its edge transversely of the arm and held by the first named ring, substantially as described. 2nd. In combination with a standard arm, a cross arm having bifurcated ends, two rings loosely connected, one of said rings standing on its edge transversely on the cross arm, and the other lying in the bifurcated section and holding the upper ring upright, and a travelling arm adapted to remove the rings from the cross arms, substantially as described. 3rd. In combination with a standard arm, a cross arm having bifurcated ends, two rings loosely connected, one of said rings standing on its edge transversely on the cross arm, and the other lying in the bifurcated section and holding the upper ring upright, and a travelling arm adapted to remove the rings from the cross arms, said travelling arm being adapted to carry a ring to be deposited on the stationary arm, substantially as described. 4th. In combination with a standard arm and an arm having stay rods, a cross arm having bifurcated ends, two rings loosely connected, one of said rings standing on its edge transversely on the cross arm and the other lying in the bifurcated section and holding the upper ring upright, and a travelling arm adapted to remove the rings from the cross arms, substantially as described. 5th. In combination with a standard arm and an arm having bifurcated ends, notches and undercut notches, two rings loosely connected, one of said rings standing on its edge transversely on the cross arm, and the other lying in the bifurcated section and holding the upper ring upright, and a travelling arm adapted to remove the rings from the cross arms, substantially as described.

**No. 63,849. Napkin Holder. (Porte-serviette.)**

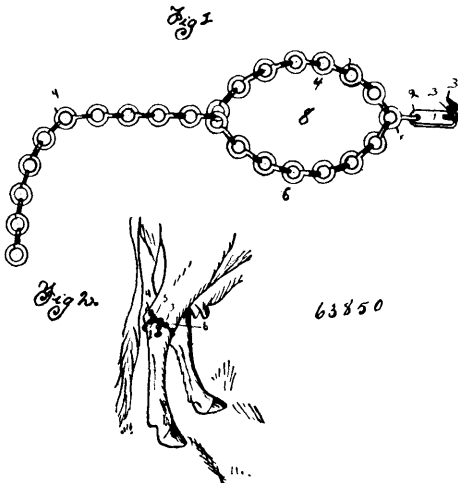


Alexander R. Ball, Corunna, Michigan, U.S.A., 13th September, 1899; 6 years. (Filed 2nd June, 1899.)

*Claim.*—1st. A napkin holder made in a single piece comprising side walls converging to their lower ends, one of the sides thereof forming the body of the securing pin being provided at one end with a coil from which the pin extends, and at its opposite or lower end with a laterally extending keeper having a return arm coiled around the body portion and extending thence upward on the opposite side of said body portion from the pin in the same transverse horizontal plane with the body portion and pin, said extension forming the outer or downwardly converging wall of the holder and having its upper end bent inward and terminating in a coil engaging the coil on the body portion from which the pin extends, substantially as

described. 2nd. As a new article of manufacture, a napkin holder formed from a single piece of wire, comprising a body portion, a converging holder portion on one side of said body portion, and a securing pin on the opposite side of said body portion, said portion having at one end a coil from which the securing pin extends and at its opposite end a keeper for said pin, having a return arm coiled around the body portion and diverging thence from the body portion above said return arm, its upper end being bent inward and terminating in a coil engaging the coil from which the securing pin extends, said diverging portion forming, in connection with the body portion of the pin, the downwardly converging walls of the holder, substantially as described.

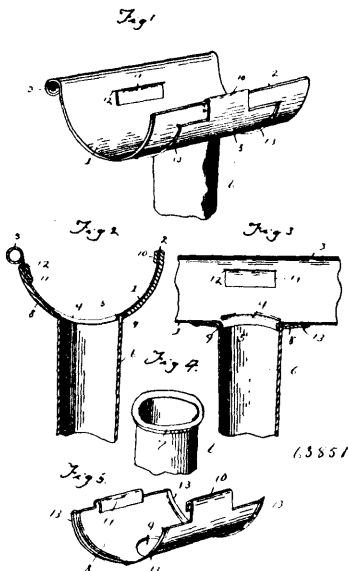
**No. 63,850, Cow Hoppie. (Entraves pour vaches.)**



Henry Bassett, Salem, New Jersey, U.S.A., 13th September, 1899; 6 years. (Filed 2nd June, 1899.)

*Claim.*—In combination, the claw plate 1, formed with eye 2 and claws 3 3, the chain 4 having one end secured in the eye 2 and the shorter chain 6 having one end fixed in the link of the chain, secured to the claw plate and its free end terminating in a hood adapted to be secured in one of the intermediate links of the chain 4, substantially as shown and described.

**No. 63,851. Eaves Trough. (Laniers de toits.)**

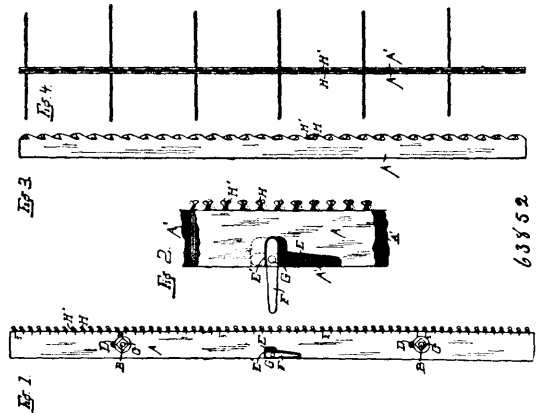


John H. Schwone and Eugene W. Lamper, both of Salamanca, New York, U.S.A., 13th September, 1899; 6 years. (Filed 7th June, 1899.)

*Claim.*—1st. The combination with an eaves trough having an opening for the down spout, of a spout having at its upper edge an annular flange bearing flatwise against the lower surface of the trough, and a strap extending around the lower side of the trough and having an opening to receive the down spout, said strap serving

to clamp the flanges of the spouts between it and the trough, substantially as described. 2nd. The combination with an eaves trough having an opening for the down spout and a depending annular flange bounding said opening, of a down spout having an annular flange at its upper edge bearing flatwise against the lower side of the trough and conforming in curvature thereto and also embracing or encircling the depending flange on the trough, and a strap extending around the lower side of the trough and having its ends connected thereto, said strap having an opening to receive the down spout, the strap serving to confine the flange on the down spout between it and the trough, substantially as described. 3rd. The combination with an eaves trough an opening for the down spout, of a down spout having a flange at its upper edge bearing the lower side of the trough, and a strap extending around the lower side of the trough and having an opening to receive the down spout, the edges of said strap being crimped, substantially in the manner and for the purpose specified.

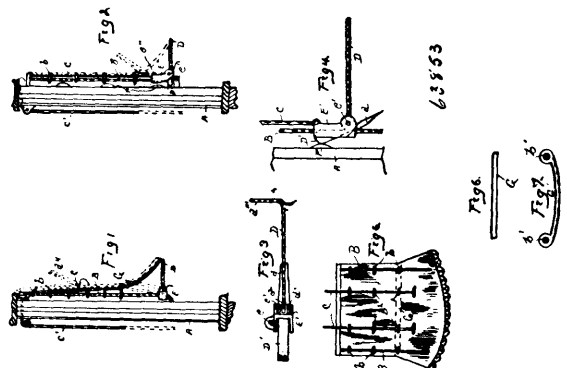
**No. 63,852. Fence Spacer. (Appareil à espacer pour clôtures.)**



Charles Baxter, Waukesha, Wisconsin, U.S.A., 13th September, 1899; 6 years. (Filed 9th June, 1899.)

*Claim.*—1st. A wire fence spacer comprising the parallel bars, adjustably secured together and provided with wire engaging prongs, and a lever pivotally secured to one of the bars and operating in a recess in the other bar, whereby, when said lever is turned to a vertical position, the recessed bar will be lifted upon the other to adjust the prongs in a position for engaging the fence wires, and the lever locked in such position by reason of the bearing of the recessed bar upon the end of the lever above its pivotal support, substantially as described. 2nd. A wire fence spacer comprising the parallel wooden bars adjustably secured together and provided with metallic wire engaging prongs, together with a lever pivoted to one of the bars and operating in a recess in the other bar, whereby when said lever is adjusted in a vertical position, it is adapted to become locked by the bearing of the recessed bar upon its end above its pivotal support, substantially as described.

**No. 63,853. Awning. (Tente.)**

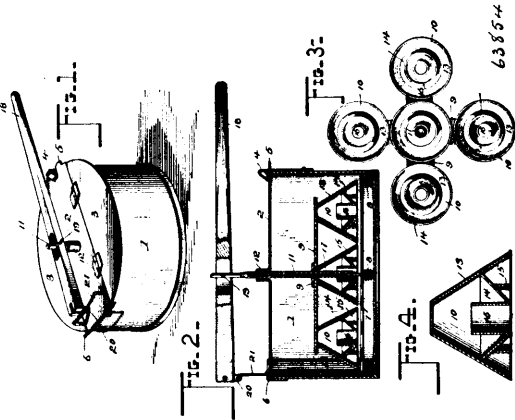


Edward Billburgh, Grand Rapids, Michigan, U.S.A., 13th September, 1899; 6 years. (Filed 14th June, 1899.)

*Claim.*—1st. In a window awning, rods secured vertically to the window frame, slides upon said rods, an arm projecting out from the slides to engage projections on the frame to actuate the arm D, said arms pivoted in the slides so that they may pass the projections when the awning is lowered and projections on the frame, substantially as and for the purpose set forth. 2nd. In a window awning, rods secured, vertically, to the frame, projections on the window frame, slides upon said rods, arms pivoted to said slides, a

covering on said arms and extending the length of the window, cords for manipulating said awning, one end of which is secured at the ends of the arms to fold the awning before raising it and the other end in convenient reach of the operator, rings for guiding the awning on the rods, and a cleat inserted at the line of folding to hold the awning to position along this line, substantially as and for the purpose set forth.

No. 63,854. Washing Machine. (Machine à laver.)



Jacob W. Thomas, Lanark, Illinois, U.S.A., 13th September, 1899 6 years. (Filed 14th June, 1899.)

Claim.—1st. In a washing machine, the combination of a receptacle, a pounder, means for directing the p under in its vertical movements, a rod placed at one side of the receptacle and curved outwardly between its ends away from the centre of the receptacle, a link mounted to swing and slide upon the rod, and an operating lever having pivotal connection with the stem of the pounder and with the said link, substantially as and for the purpose set forth. 2nd. In a washing machine, the combination of a receptacle, a cover therefor comprising a central section and side wings hinged thereto, the said central section having a tubular guide, a vertical rod secured to the bottom of the receptacle, a pounder having a tubular stem guided in its movements by the aforesaid tubular guide and the vertical rod, a rod placed at one end of the central section and curving outwardly between its ends, a link mounted to slide and turn upon said rod, and a lever having pivotal connection with said link and with the stem of the pounder, substantially as set forth. 3rd. In a washing machine, a pounder comprising a funnel shaped body open at the bottom and closed at the top, an inversely disposed flaring diaphragm secured at its upper edge to the body at a point intermediate its upper and lower ends and dividing the funnel shaped body into an upper air space closed at the top, and a lower air space, a tube secured to the lower end of the diaphragm and extending upward approximately midway of the upper air space and forming an inlet to said chamber, and a ring depending from the diaphragm about midway of its ends, the lower edges of the body, ring, diaphragm and tube being in the same horizontal plane, substantially as set forth.

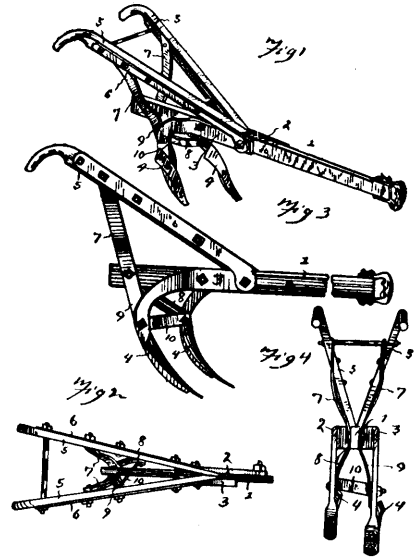
No. 63,855. Railway Tariff Chart. (Carte de tarif pour chemins de fer.)

Amos W. Standing, St. Louis, Missouri, U.S.A., 13th September, 1899; 6 years. (Filed 19th June, 1899.)

Claim.—1st. A perpetual or continuous tariff comprising a number of separable or replaceable sheets containing data such as routings, rates, etc., for which the tariff is issued, and the columns containing references to authority, dates, or other collateral entries to be associated with the data of the tariff, substantially as and for the

purposes set forth. 2nd. A perpetual or continuous tariff for railways, etc., comprising a plurality of separable or replaceable sheets containing the tariff data and also containing in the form spaces for the introduction of matter to be added or deducted from time to time, such as references to authorities, dates or arbitraries, etc., whereby corrections may be made in the forms and new corrected sheets containing current changes may be substituted at will and thus keep the tariff up to date without reprinting other than the sheet immediately affected by the changes, substantially as herein explained.

No. 63,856. Plough. (Charrue.)



Yeren Grimland, Clifton, Texas, U.S.A., 13th September, 1899; 6 years. (Filed 22nd June, 1899.)

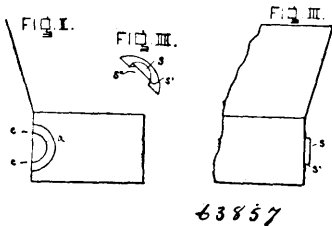
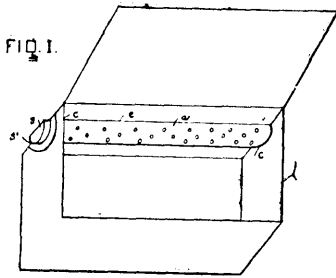
Claim.—1st. The combination with a central beam and side beams secured to opposite sides of the central beam and provided at their lower ends with plough points, of handles having their front ends secured to the central beam, and braces secured at an intermediate point to opposite sides of the rear end of the central beam and having their end portions extending above and below the central beam upon divergent lines and secured respectively to the handles and rear end portions of the side beams, substantially as set forth. 2nd. The combination with a central beam and side beams of different lengths secured to opposite sides of the central beam and provided at their lower ends with plough points, of handles secured at their front ends to the central beam, braces secured at an intermediate point to opposite sides of the rear portion of the central beam and having their end portions extending above and below the central beam upon divergent lines and making connection with respectively the handles and rear portions of the side beams, the lower end portion of one of the braces extending forwardly, and a horizontal brace connecting the rear end portions of the side beams, substantially as set forth. 3rd. In an agricultural implement, the combination with a central beam, and side beams secured to opposite sides of the central beam, of handles secured together with their front ends arranged upon the central beam, the metal reinforcing straps secured to the outer sides of the handles and having their lower ends projecting below the front ends of the same and secured to and embracing the said side beams, and braces extending from the side beams to the handles and connected at an intermediate point to the central beam, substantially as described. 4th. In an agricultural implement, the combination of a central beam, handles having their front ends arranged upon the central beam, side beams located at opposite sides of the central beam, and the metal reinforcing straps secured to the outer sides of the handles and having their lower terminals projecting below the same and embracing and secured to the side beams, substantially as described.

No. 63,857. Cake Box. (Boîte à gateaux.)

Susan F. Savidge, Asbury Park, New Jersey, U.S.A., 13th September, 1899; 6 years. (Filed 23rd June, 1899.)

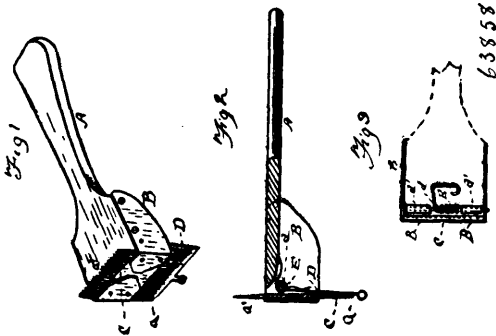
Claim.—1st. The combination with a cake box, of a tube horizontally arranged in and having external communication at both its ends through two of the walls of said box, said tube being provided with a series of ventilative perforations opening into said box, substantially as described. 2nd. The combination with a cake box, of

a tube horizontally arranged in, and having external communication at both its ends through two of the walls of said box, said tube



being provided with a series of ventilative perforations opening into said box and having a cap for each of its ends, substantially as described.

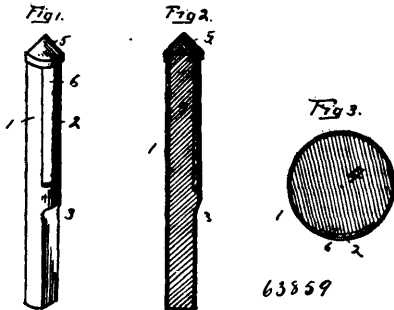
No. 63,858. Comb. (Peigne.)



George Brain, Forest City, Pennsylvania, U.S.A., 13th September, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—The handle A, angle plates B, B forming the sides and back, comb C, pivoted cross plate D and spring E, arranged to force the plate D against the comb C, substantially as and for the purpose specified.

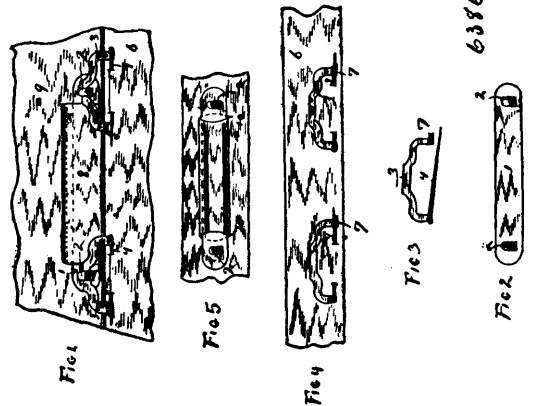
No. 63,859. Fence Post. (Poteau de clôtures.)



John A. Riggs, Sheridan, Oklahoma, U.S.A., 13th September, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—In a fence post, the combination of an outer metallic, hollow casing, having a slot in the upper portion thereof, and a wooden filling mounted in said casing and exposed through said slot, the said filling being provided with a sheet metal covering, substantially as described.

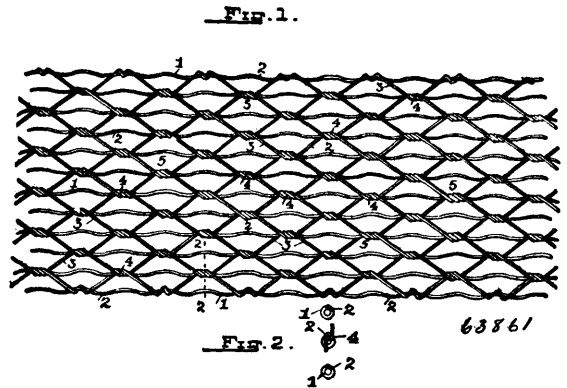
No. 63,860. Skirt Support. (Support de jupes.)



William S. Steele, Dayton, Ohio, U.S.A., 13th September, 1899; 6 years. (Filed 28th June, 1899.)

Claim.—In a skirt supporter, the combination with a skirt waist provided with a pocket or casing 8 on the lower portion thereof, of a supporting bar having hooks adjacent to its ends, the said supporting bar being loosely supported in the casing 8 with the ends thereof having the hooks, projected beyond the ends of said casing, and loops 3 adapted to engage with the hooks on the supporting bar, the said loops having pins 4 whereby they are detachably united to the waistband of a skirt, substantially as described and for the purpose specified.

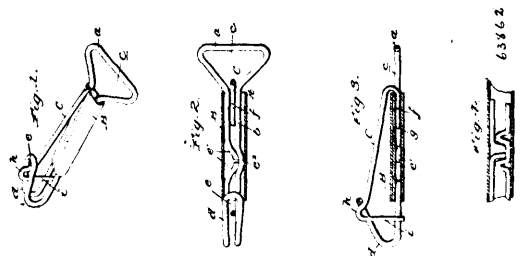
No. 63,861. Woven Wire Fencing. (Clôture en tissus métalliques.)



Alva La Salle Kitzelman, Ridgeville, Indiana, U.S.A., 13th September, 1899; 6 years. (Filed 28th June, 1899.)

Claim.—A woven wire fence comprising a plurality of parallel warp wires extending longitudinally of the fence and regularly coiled throughout their entire length, and weft wires twisted together at their points of intersection to produce diamond-shaped meshes, the twisted portions of the intersecting weft wires being closely wrapped about a coil of said warp wires, which latter bisect the diamond-shaped meshes and contract and expand therewith without becoming loose at their points of connection with the weft wires, substantially as set forth.

No. 63,862. Snap Hook. (Crochet à ressort.)



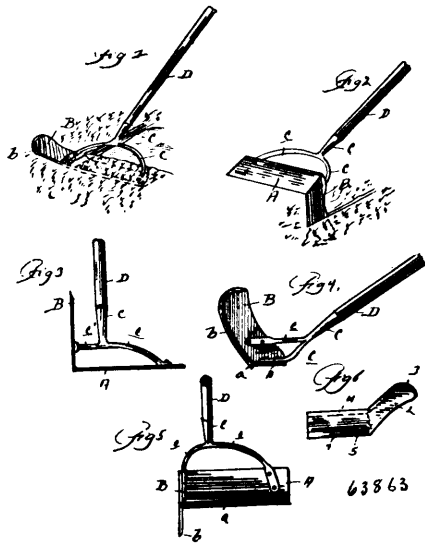
Richard W. Hubbard, Ashtabula, Ohio, U.S.A., 13th September, 1899; 6 years. (Filed 30th June, 1899.)

Claim.—1st. In a hook, the body described made of the single piece of wire with parallel portions having the shank, and having a

deflection in one parallel portion and the ends of the piece of wire arranged contiguous to each other at an intermediate point of the other parallel portion and bent laterally and seated in the deflection, and a suitable means on the shank for holding the ends of the piece of wire in the deflection thereof, substantially as specified. 2nd. In a hook, the combination of the body described made of the single piece of wire with parallel portions forming the shank and merging at the opposite ends thereof into an eye and hook proper, said body having a deflection in one parallel portion of the shank and also having the ends of the piece of wire arranged contiguous to each other at an intermediate point of the other parallel portion and bent laterally and seated in the deflection, and a sleeve mounted on the shank of said body, substantially as specified. 3rd. In a snap hook, the combination of a body comprising a shank and a hook proper at one end of the shank terminating in an eye, a sheet metal sleeve mounted on the shank of the hook, and a spring tongue having one end arranged in the sleeve and extended through an aperture therein, and also having the rounded portion *h* and the angular disposed portion *i* at its opposite end, substantially as specified. 4th. In a hook, the combination of the body described made of the single piece of wire with parallel portions forming the shank and merging at the opposite ends thereof into an eye and hook proper, said body having a deflection in one parallel portion of the shank and also having the ends of the piece of wire arranged contiguous to each other at an intermediate point of the other parallel portion and bent laterally and seated in the deflection, a sheet metal sleeve mounted on the shank of the said body, and a spring tongue having one end arranged in the sleeve and extended through an aperture therein, and also having the rounded portion *h* and the angular disposed portion *i* at its opposite end, substantially as specified.

**No. 63,863. Hoe and Edge Trimmer.**

(Houe et appareil à égaliser les bordures des pelouses.)



Charles Holmes Purdy, Lynbrook, New York, U.S.A., 13th September, 1899; 6 years. (Filed 12th June, 1899.)

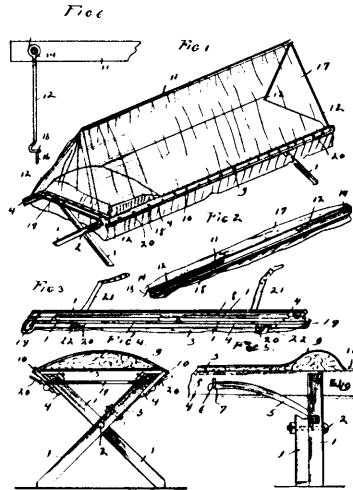
*Claim.*—1st. The herein described combined horizontal hoe and edge trimmer, consisting of a horizontal hoe blade, a vertical edge trimming blade extending from one end of said hoe blade and having a sharpened longitudinal edge and terminating in an inclined cutting point, and a handle connected with said horizontal and vertical blades, substantially as described. 2nd. The herein described combined horizontal hoe and edge trimmer consisting of a horizontal hoe blade, a vertical edge trimming blade extending from one end only of said hoe blade and having a forwardly inclined cutting edge, and a handle bail one arm of which is attached to said vertical blade and the other arm to said horizontal blade, substantially as shown and described. 3rd. The herein described combined horizontal hoe and edge trimmer, consisting of a horizontal blade, a vertical blade extending from one end of said horizontal blade, and having a forwardly inclined cutting edge and formed with a rounded free cutting end, and a handle bail, the arms of which are respectively attached to said horizontal and vertical blades, in different horizontal planes, substantially as described and for the purposes set forth.

**No. 63,864. Folding Cot and Canopy.** (Lit pliant.)

Samuel F. Seely, Toledo, Ohio, U.S.A., 13th September, 1899; 6 years. (Filed 12th July, 1899.)

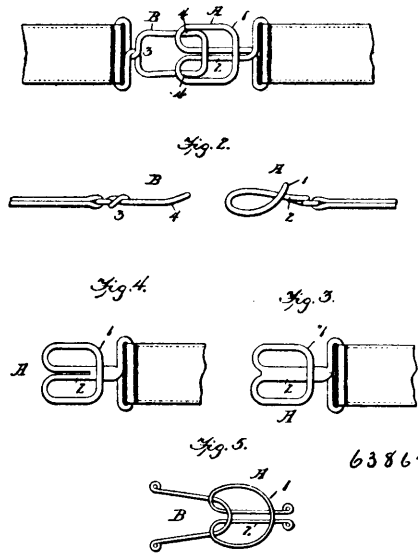
*Claim.*—In a portable foldable cot and canopy comprising leg, and longitudinal side mills having a fabric secured thereto provided with

a plurality of buttons and supplemental ticking having perforations for connection with the buttons of the side rail and ridge pole,



standards pivotally secured thereto adapted to be inserted into orifices provided therefor for their reception into the side rails, foraminous covering supplemental from the ridge pole and extending below the side rails, a means for holding the foraminous covering with relation to the side rails.

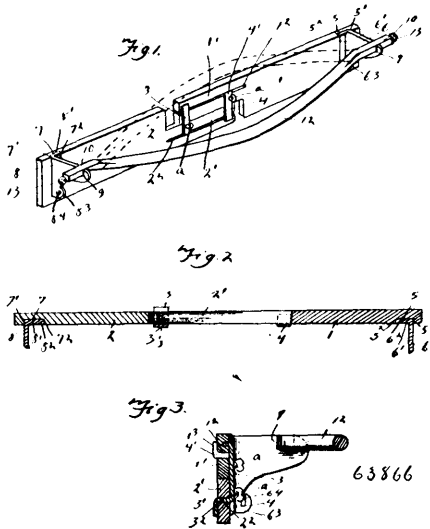
**No. 63,865. Fastening Device.** (Agrafe.)



Harsey K. Leonard, Montrose, Pennsylvania, U.S.A., 13th September, 1899; 6 years. (Filed 13th July, 1899.)

*Claim.*—1st. As an article of manufacture, a fastening device consisting of two members, one of which is in the form of an eye or loop and the other in the form of a hook, the hook consisting of a central shank, sides extending from the free end of the shank outwardly so that the width of the hook is greater than the width of the loop or eye, said sides finally extending backward, and a guard extending across the shank and connecting the sides. 2nd. As an article of manufacture, a fastening device consisting of two parts, one a loop or eye and the other a hook, the hook consisting of the main central shank, the guard extending across the shank and the sides extending from the ends of the guard to the opposite side of the shank and finally terminating in the shank. 3rd. The combination with a loop or eye bent to form an obtuse angle at or near its outer end of a hook of greater width than the eye or loop, said hook consisting of a shank, a cross guard and sides extending from the ends of the guard across to the other side of the shank and thence finally terminating in the outer end of the shank.

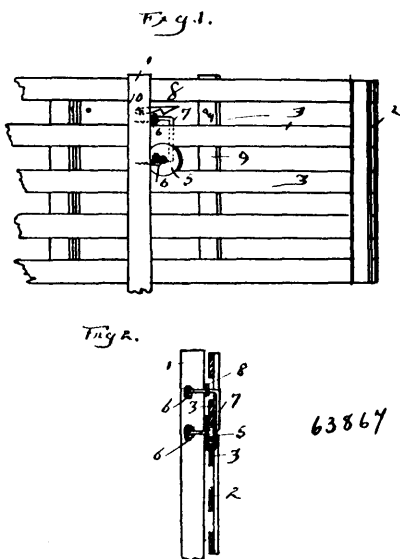
No. 63,866. Curtain Fixtures. (Appareil de rideau.)



William C. Schramann, Barton, Maryland, U.S.A., 13th September, 1899; 6 years. (Filed 19th July, 1899.)

*Claim.*—1st. The adjustable base boards, provided with vertical parallel grooves, each of which is formed with a right angular and a parallel undercut wall, the brackets mounted in said grooves, and provided with correspondingly formed ears, and having a rectangular notch formed in their upper edges, and a curtain pole formed with rectangular ends to engage said notched brackets, substantially as described. 2nd. The base boards 1 and 2, formed with the parallel tongues 1<sup>1</sup> and 2<sup>1</sup>, which are provided with the slots 1<sup>2</sup>, 2<sup>2</sup>, the clips 3 and 4 fixed to the tongues 1<sup>1</sup> and 2<sup>1</sup>, respectively, and having a sliding engagement with said slots, and means carried by the clips for locking them in their adjusted position, substantially as and for the purpose set forth.

No. 63,867. Gate. (Barrière.)



David M. Waugh, Columbia City, Indiana, U.S.A., 13th September, 1899; 6 years. (Filed 19th July, 1899.)

*Claim.*—In a gate, the combination of a swinging bail supporting a wheel, a gate having longitudinal rails mounted astride said wheel, a latch for engaging said bail, and means in connection with said gate for disengaging said latch, substantially as shown and described.

No. 63,868. Skirt Facing. (Bordure de jupes.)

Fig. 1

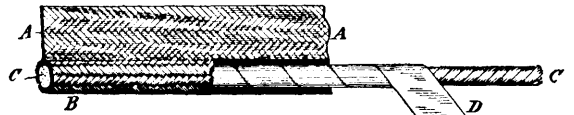
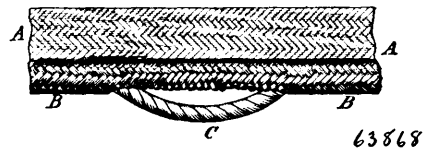


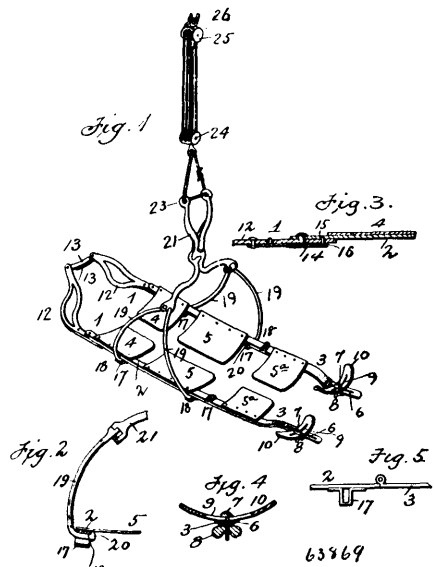
Fig. 2



Ludwig Sutro, New York City, New York, U.S.A., 13th September, 1899; 6 years. (Filed 19th July, 1899.)

*Claim.*—1st. A beaded skirt facing of braided textile material having a waterproof adhesive core in the edge bead, substantially as described. 2nd. In a beaded skirt facing of braided textile material, the tape A, A, the bead B, B, and the core C, C, coated with a waterproof adhesive substance uniting the strands of the bead B, B to the core C, C, substantially as and for the purposes described. 3rd. In a beaded skirt facing of braided textile material, a core C, C, sheathed in adhesive gutta percha uniting the strands of the bead B, B and the core C, C, substantially as and for the purposes described.

No. 63,869. Invalid's Elevator. (Elevateur pour invalides.)

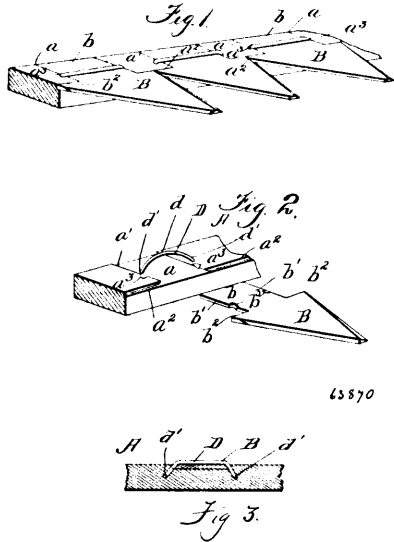


Wilson A. Allen, Rochester, New York, U.S.A., 13th September, 1899; 6 years. (Filed 20th July, 1899.)

*Claim.*—1st. The combination with the bars provided with inwardly extending plates, and the bars hinged thereto formed with slots near the outer ends, of the slotted foot rests and the screw bolts and nuts, substantially as described. 2nd. In an apparatus of the character described, the combination with the bars provided with inwardly extending plates, the pivoted head rests and the slotted bars hinged to said first mentioned bars, of the slotted foot rests and the screw bolts and nuts, substantially as specified. 3rd. The combination with bars provided with inwardly extending curved plates and formed with holes near the upper ends, and the folding head rests pivoted to said bars, and the springs secured to said head rests provided with pins or projections engaging with said

holes, of the hinged and slotted bars, the slotted foot rests, the screw bolts and the nuts, substantially as described. 4th. The combination with the bars provided with inwardly extending curved plates and with U-shaped lugs on the undersides, the folding bars provided with adjustable foot rests and the pivoted head rests, of the grapple comprising the loosely pivoted levers and the curved arms pivoted thereto and having their free ends turned inwardly and provided with projections, substantially as described.

**No. 63,870. Cutter Bar for Mowing Machines.**  
(*Souches de lames pour faucheuses.*)

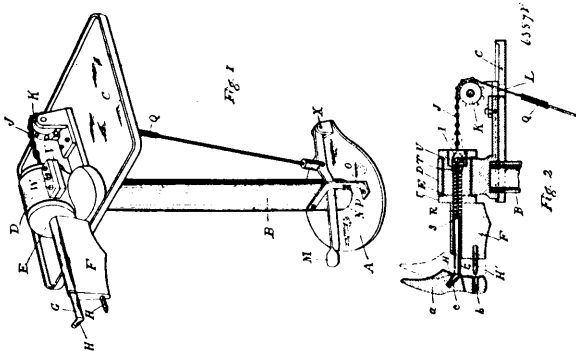


63870

John B. Hill, Winchester, Ontario, Canada, 13th September, 1899; 6 years. (Filed 26th July, 1899.)

**Claim.**—The combination with a cutter bar provided with a recess having under cut side edges and inclined perforations formed in said side edges, of a knife having a shank adapted to be removably mounted in said recess, bevelled edges formed upon the rear of said knife and the sides of said shank, corresponding with the under cut edges of said recess, the edges of the said shank being provided with grooves corresponding with the perforation of said recess, and a locking bar adapted to be driven into the perforations and grooves of the said recess and shank, whereby said knife is removably secured to the cutter bar, substantially as described.

**No. 63,871. Treeing Machine** (*Embouchoir pour chaussures.*)

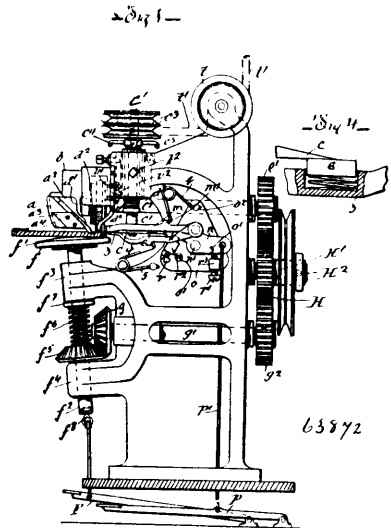


Amos G. Fitz, Auburn, Maine, U.S.A., 13th September, 1899; 6 years. (Filed 25th July, 1899.)

**Claim.**—1st. In a treeing machine, a suitable supporting frame work, a rotatable shaft mounted thereon, a reciprocating spindle mounted in said shaft, one end bent at an angle to the main portion, a spur on said shaft, and means for reciprocating said spindle. 2nd. In a treeing machine, a suitable supporting frame, a shaft rotatably mounted thereon, a spindle having a bent end adapted to reciprocate in said shaft, a spur eccentrically set in the end of said shaft, means for imparting a reciprocating motion to said spindle and means for locking it when drawn back. 3rd. In a treeing machine, a suitable supporting frame, a shaft rotatably mounted on said frame and provided with an extended arm, a spindle adapted to reciprocate in said shaft and arm and having its free end bent at an angle to

the main portion thereof, a spur in the end of said arm, an operating lever, a swivel on the end of said spindle, means connecting said foot lever and swivel for operating said spindle in one direction and a spring tending to impel it in the opposite direction. 4th. In a treeing machine, a suitable supporting frame, a rotatable shaft mounted thereon, said shaft having an outwardly extended arm, a reciprocating spindle mounted in and adapted to revolve with said shaft and arm, the end of said spindle being bent at an angle to the main portion, a spur eccentrically set in the end of said shaft, mechanism for imparting a reciprocating motion to said spindle consisting of a spring tending to force it out and a foot lever and sprocket and chain connecting said spindle and a foot lever to throw the spindle back. 5th. In a treeing machine, a suitable supporting frame, a shaft rotatably mounted thereon, a spindle concentrically mounted in and adapted to reciprocate in said shaft and having one end bent at an angle to the main portion, a spur eccentrically set in the end of said shaft and adapted to co-operate with said spindle to hold the last, the bent end of the spindle lying normally beyond the end of the spur and means for reciprocating said spindle. 6th. In a treeing machine, a suitable supporting frame, a shaft journaled thereon, a reciprocating spindle mounted in said shaft and having its end bent at an angle to the main portion, a spur on the head of said shaft adapted to co-operate with said spindle to hold a last, means for reciprocating said spindle, means for locking said spindle when forced back and means for holding the locking lever with a yielding tension.

**No. 63,872. Sole Channelling Machine.**  
(*Machine à canneler les chaussures.*)



63872

The Goodyear Sole Machinery Company of Canada, New York City, New York, U.S.A., assignee of Francis Joseph Freese Lowell, Massachusetts, 13th September, 1899; 6 years. (Filed 22nd June, 1899.)

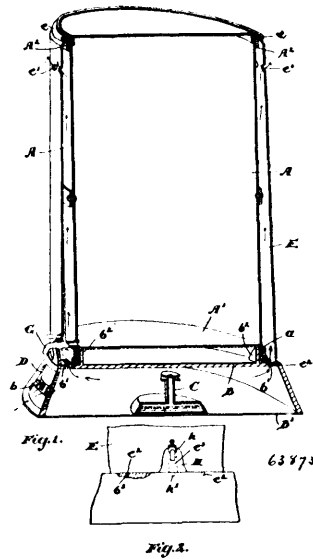
**Claim.**—1st. A channeller having a stationary cutter and a rotary cutter, the stationary cutter set at an angle to the plane of rotation of the rotary cutter and with the cutting edge thereof curved toward said rotary cutter. 2nd. A channeller having a yieldingly adjustable work support mounted on axis inclined to the vertical, and feed mechanism, a work guide, and a grinder, a stationary cutter and a rotary cutter, the stationary cutter set at an angle to the plane of rotation of the rotary cutter and having the cutting end thereof curved toward the edge of said rotary cutter, and means for operating said rotary cutter, for the purpose set forth. 3rd. A channeller having a stationary cutter and rotary cutter, a vertically rotatable feed device located above such rotary cutter, a rotary work support mounted on an axis inclined to the vertical and adjustable in line therewith, an adjustable work guide, a grinder, the stationary cutter set at an angle to the plane of rotation of the rotary cutter and having the cutting end thereof curved toward the edge of said rotary cutter, and means for operating such rotary cutter, work support and feed device, and for adjusting such work support, and work guide, for the purpose set forth. 4th. A channeller having a rotary cutter and a work guide, the latter located in rear of the edge of the cutter and in radial line with and in the same vertical plane as its axis to bear upon the edge of stock being cut. 5th. A channeller having a rotary cutter and an adjustable work guide, the latter located in rear of the edge of the cutter and in radial line with and in the same vertical plane as its axis to bear upon the edge of the stock being cut. 6th. A channeller having a work support mounted on an axis inclined to the vertical and a rotary cutter and a work



guide, the latter located between the work support and cutter in line with the axis of the latter, for the purpose set forth. 7th. A channeller having a rotary cutter, mounted rigidly on a rotatable spindle carried loosely in an adjustable sleeve pivotally carried in the frame of the machine and means for operating such spindle, for the purpose set forth. 8th. A channeller having a rotary cutter, mounted rigidly on a rotatable spindle carried loosely in a sleeve externally screw-threaded to take into the screw-threaded interior of a second sleeve, an opening in the frame of the machine in which said second sleeve is pivotally mounted and means for adjusting and operating such spindle, for the purpose set forth. 9th. A channeller having a rotary cutter mounted rigidly on a rotatable spindle carried loosely so as to rotate freely in an adjustable sleeve pivotally carried in the frame of the machine, a finger nut rigidly mounted on said sleeve and graduations on the carrying part for such sleeve with which a portion of such finger nut registers, and means for operating such spindle, for the purpose set forth. 10th. A channeller having a rotary cutter mounted rigidly on a rotatable spindle carried loosely in a sleeve externally screw-threaded to take into the screw-threaded interior of a second sleeve, a finer nut rigidly mounted on said externally screw-threaded sleeve, and graduations on the carrying part for such sleeve with which a portion of such finger nut registers, an opening in the frame of the machine in which said second sleeve is pivotally mounted, and means for adjusting and operating such spindle, for the purpose set forth. 11th. A channeller having a rotary cutter mounted rigidly on a rotatable spindle carried loosely in an adjustable sleeve pivotally carried in the frame of the machine, a stationary grinder and means for operating such spindle, for the purpose set forth. 12th. A channeller having a rotary cutter mounted rigidly on a rotatable spindle carried loosely in a sleeve externally screw-threaded to take into the screw-threaded interior of a second sleeve, an opening in the frame of the machine, in which said second sleeve is pivotally mounted, a stationary grinder and means for adjusting and operating such spindle, for the purpose set forth. 13th. A channeller having a rotary cutter mounted rigidly on a rotatable spindle carried loosely in an adjustable sleeve in the frame of the machine, a finger nut rigidly mounted on said externally screw-threaded sleeve and graduations on the carrying part for such sleeve with a portion of such finger nut registers, a stationary grinder, and means for operating such spindle, for the purpose set forth. 14th. A channeller having a rotary cutter, with means for operating same, a work guide the guiding end of which is located in rear of the edge of the cutter and in radial line with and in the same vertical plane as the axis of same, a bell crank lever fulcrumed to the frame of the machine and having the other end of the guide pivotally connected to one arm thereof and a treadle connection with the other arm of such bell crank lever, for the purpose set forth. 15th. A channeller having a rotary cutter, with means for operating same, a work guide, the guiding end of which is located in rear of the edge of the cutter and in radial line with and in the same vertical plane as the axis of same, a bell crank lever fulcrumed to the frame of the machine and having the other end of the guide pivotally connected to one arm thereof, a treadle connection with the other arm of such bell crank lever and adjustable limiting stops, for the purpose set forth. 16th. A channeller having a rotary cutter, with means for operating same, a work guide the guiding end of which is located in rear of the edge of the cutter, and in radial line with and in the same vertical plane as the axis of same, a bell crank lever fulcrumed to the frame of the machine and having the other end of the guide pivotally connected to one arm thereof, means for exerting upon such work guide a yielding pressure forward and toward such rotary cutter, and a treadle connection with the other arm of such bell crank lever, for the purpose set forth. 17th. In combination with the cutter of a channeller, work guiding mechanism having a part above the cutter and a part below the cutter to present a guiding face above and below said cutter, for the purpose set forth. 18th. In combination with the cutter of a channeller, a work guide in the form of an arm with one end located in rear of the edge of the cutter and in radial line with and in the same vertical plane as the axis of same, and the other end pivotally connected to one arm of a bell crank, over the other arm of which lever has a treadle connection, and means for limiting the movement of and for exerting a forward and lateral pressure upon such work guide, for the purpose set forth. 19th. In combination with the cutter of a channeller, work guiding mechanism adapted to present a guiding face above and below said cutter, said work guiding mechanism consisting of a guide arm located above such cutter with one end in rear of the edge of the cutter and in radial line with and in the same vertical plane as the axis of same, and the other end pivotally connected to one arm of a bell crank lever, the other arm of which lever has a treadle connection and a second guide arm located below the cutter and having one end in vertical line with the end of the first mentioned guide arm and its other end pivotally connected to said first mentioned arm, and means for exerting a forward and lateral pressure upon such work guide, for the purpose set forth. 20th. In combination with the cutter of a channeller, work guiding mechanism adapted to present a guiding face above and below said cutter, said work guiding mechanism consisting of a guide arm located above such cutter with one end in rear of the edge of the cutter and in radial line with and in the same vertical plane as the axis of same, and the other end pivotally connected to one arm of a bell crank lever, the other arm of which lever has a treadle connection, and a second guide arm located

below the cutter and having one end in vertical line with the end of the first mentioned guide arm and its other end pivotally connected to said first mentioned arm, and means for limiting the movement of and exerting a forward and lateral pressure upon such work guide, for the purpose set forth.

**No. 63,873. Milk Can. (Bûton à lait.)**



James Fisher, Galt, Ontario, Canada, 14th September, 1899; 6 years. (Filed 21st April, 1899.)

*Claim.*—1st. The combination with a milk can, of a hollow base for supporting the same and a heating burner located therein, a casing extending upwardly from the hollow base and surrounding the can, so as to leave an annular chamber, between it and the can, openings leading through the base into this chamber and openings at the top leading from the chamber, as and for the purpose specified. 2nd. In combination a milk can provided with a suitable faucet, a hollow base for supporting the milk can and heating burner located therein, a casing extending upwardly from the hollow base and surrounding the can so as to leave an annular chamber, a slot in the casing to admit the faucet and a removable plate closing such slot provided with a teat extending into the base, openings leading through the base into this chamber and openings at the top leading from the chamber, as and for the purpose specified. 3rd. In combination a milk can provided with a downwardly extending bottom rim, a hollow base for supporting the same and provided with upwardly projecting lugs extending within the bottom rim of the can, a heating burner located therein, a suitable door and damper in the periphery of the hollow base, the casing provided with downwardly extending teats fitting into holes in the base, openings leading through the base into the chamber and exit openings at the top of casing, as and for the purpose specified.

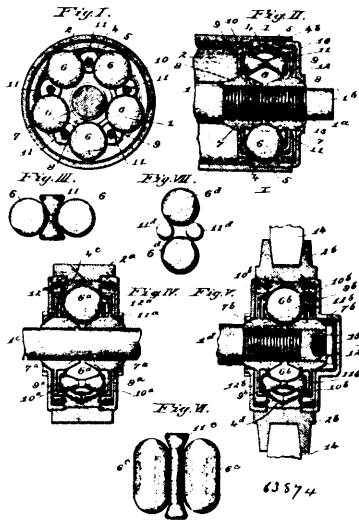
**No. 63,874. Antifriction Bearings.**

(*Coussinet de tourillon sans friction.*)

Edward Hanson Connor and Albert Henry Zeller, assignees of Louis Henry Seubert, all of St. Louis, Missouri, U.S.A., 14th September, 1899; 6 years. (Filed 13th March, 1899.)

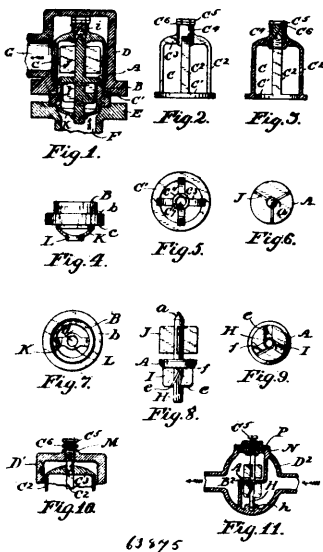
*Claim.*—1st. The combination of a housing, a shaft, cone members providing an annular roller channel having discs formed with flanges and mounted on said shaft, a ring secured rigidly within the housing, said ring being provided with a roller channel, a series of main rollers working in the channels, and a series of intermediate rollers working between the main rollers and on the flanges, substantially as described. 2nd. In an antifriction bearing, the combination of a shaft, a housing, a ring mounted in said housing, said ring having opposing inclined faces forming a trough like channel, a pair of opposing cone members having inclined faces, said cone members carrying discs provided with inwardly projecting track rims, a series of rollers arranged between said cone members and said ring, and a series of rollers arranged intermediate of the first named series of rollers, substantially as described. 3rd. The combination of a shaft, a cone member having an outer tapering face and carried by said shaft, a housing, an adjustable cap secured within the housing and having an outwardly tapering central aperture fitting the tapering face of the cone member, substantially as described. 4th. In an antifriction bearing, the combination of a shaft, a pair of cone members carried by said shaft, the outer one of said cone members being provided with a tapering face, a housing, a cap secured in said housing and provided with a central tapering

aperture, a ring mounted in said housing, said ring having opposing inclined faces, a series of rollers arranged between said cone



members and said ring, and a series of rollers arranged intermediate of the first named series of rollers, substantially as described. 5th. In an antifriction bearing, the combination of a shaft, a housing containing roller receiving channels, two series of rollers, a pair of adjustable cone members carried by said shaft, and cone members carrying track rims for one series of said rollers, substantially as described. 6th. In an antifriction bearing, the combination of a shaft, a housing containing roller receiving channels, two series of rollers, a pair of adjustable cone members carried by said shaft, said cone members carrying track rims for one series of said rollers, said track rims being formed with inclined bearing surfaces whereby on their adjustment the series of rollers in contact therewith are moved to govern the slack between the rollers of the outer series, substantially as described. 7th. In an antifriction bearing, the combination of a housing containing roller receiving channels, a shaft, two series of rollers, and a pair of track rims mounted in said housing and arranged to receive the travel of one of said rollers, substantially as described.

No. 63,875. Valve. (Soupape.)

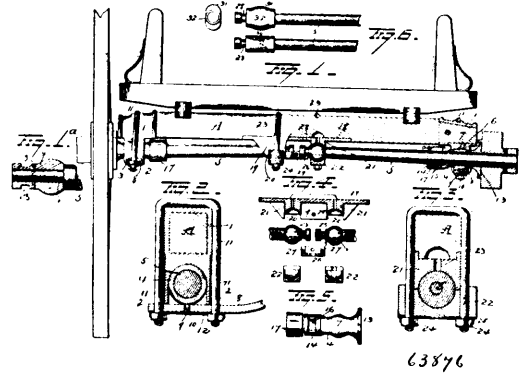


Norman McLeod, Mattoon, Illinois, U.S.A., 14th September, 1899; 6 years. (Filed 1st April, 1899.)

Claim.—1st. A means for preventing fouling of check valves by reason of accumulation of sediment about the valve, said means comprising spirally arranged blades operatively connected to the valve whereby the same is caused to rotate by the action of the

passing fluid current, radially disposed blades operatively connected above the valve and adapted to be rotated in unison therewith to cause agitation of the passing fluid and prevent the depositing of sedimentary matter, guides for the valve, and a stop above the valve providing a bearing adapted to permit the valve to rotate when open, substantially as set forth. 2nd. A means for maintaining clear or clean clearance spaces in check valve cases free from sediment, said means consisting of a valve suitably seated in the case, a spindle providing an axle for said valve, guides for said spindle, a stop adapted to receive the thrust of said spindle whereby the lift of said valve from its seat is limited, wings or blades below said valve whereby the same is rotated when lifted from its seat by the force of the fluid current, and wings above said valve adapted to be rotated in unison therewith and whereby agitation of the fluid above said valve is produced, substantially as set forth. 3rd. A check valve comprising the case, and a valve suitably seated therein and provided with spirally formed wings or blades below said valve, whereby said valve is caused to rotate by the action of the passing fluid, and blades or wings above said valve adapted to be rotated thereby and whereby agitation of the fluid above said valve is produced, and guides for said valve, substantially as set forth. 4th. In a check valve, the combination of the case, the valve seat therein, the valve mounted upon said seat, guides for said valve, spirally formed wings below said valve and adapted to cause said valve to rotate by the action of the fluid against said wings, wings above said valve adapted to be rotated thereby and whereby agitation of the fluid above said valve is produced, and an adjustable stop whereby the lift of said valve from its seat is limited, substantially as shown and described. 5th. In a check valve, the combination of the case, the valve seat therein, the circular valve mounted upon said seat and having the central axial spindle, the spirally formed wings attached below said valve and joining said valve and said spindle, the wings attached to said spindle above said valve, the guide for the lower end of said spindle, and the adjusting screw providing a guide and an adjustable stop for the upper end of said spindle, substantially as shown and described. 6th. In a check valve, the combination of the case, the valve seat therein, the valve mounted upon said seat and provided with the spirally formed wings situated below said seat, the axial spindle extending above said valve, the radial wings attached to said spindle above said valve seat, the cage in which said valve is seated, a guide for said valve, and the adjusting screw centrally at the top of said cage and providing a lateral guide and an adjustable stop for said spindle whereby the amount of lift of said valve is controlled, substantially as shown and described.

No. 63,876. Axle Bearing. (Cousinet d'essieu.)

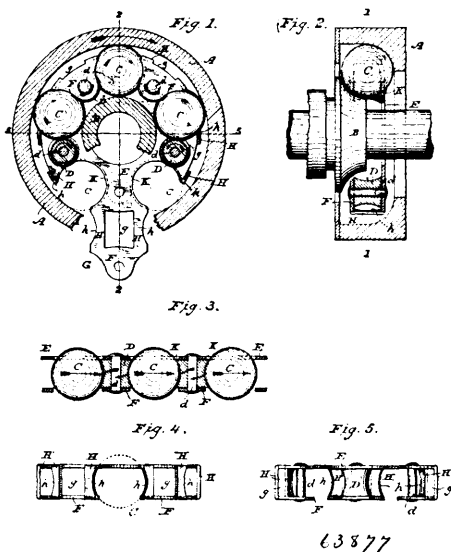


Clay Faulkner, McMinnville, Tennessee, U.S.A., 14th September, 1899; 6 years. (Filed 15th May, 1899.)

Claim.—1st. The combination with a support and a revoluble axle, of a bearing sleeve for the axle, secured to said support, the inner end of said sleeve being enlarged whereby to form an annular chamber around the axle, the wall of said chamber having a hole therein, and a cover over said hole, substantially as set forth. 2nd. The combination with a support and a revoluble axle made in two sections and having grooves near their inner ends, of a box or waste cup having its ends recessed and disposed in the grooves in the axles and means for securing said box or waste cup in place. 3rd. The combination with a support and two revoluble axles, of outer bearings for said axles, inner bearings for the axles and a lubricant receptacle disposed between the inner bearings and inclosing the inner ends of the axles, substantially as set forth. 4th. The combination with a support, a revoluble axle and a bearing for the outer end of said axle, of an extension on the inner end of said axle, a sleeve secured on said extension, said sleeve having a spherical enlargement at one end and an annular groove near its other end, bearing blocks to receive said spherical portion of the sleeve and a lubricant cup into which the inner end of the sleeve projects, said cup having a curved face constituting a bearing for the sleeve in the annular groove therein, substantially as set forth. 5th. The combination with a support and a revoluble axle made in two sections, of bearing sleeve

for said axle having lubricant receptacles therein, enlargements near the inner ends of said axle sections, bearing blocks secured to said support and adapted to revolvably secure said enlargements in place and a box or waste cup also secured to the support and having recessed ends disposed to grooves in the ends of the axle sections. 5th. The combination with a support and a revolvable axle made in two sections, of bearing sleeves for said axle, a lubricant receptacle in said bearing sleeve having an opening therein for the admission of lubricant and a cover for said opening movably mounted on said receptacle, enlargements on the inner end of each axle section, a plate secured on said support and having downwardly extending parallel side flanges, bearing blocks secured to said plate for the reception of the enlargements on the axle, bearing blocks secured to said support and adapted to secure the enlargements on the axle between said bearing blocks, and a waste cup or box into which the inner ends of the sections of axle project and means for securing said waste cup or box to the support. 7th. The combination with a support and two axles, of outer bearings for the axles, a plate secured centrally between the ends of the support and having depending parallel flanges between which the inner ends of the axles terminate, inner bearings for the axle carried by said flanged plate, and a lubricant disposed between said depending flanges and inclosing the inner ends of the axle, substantially as set forth.

**No. 63,877. Ball Bearing. (Cousinet à roulettes.)**



George A. Burwell, Toledo, Ohio, U.S.A., 14th September, 1899; 6 years. (Filed 17th March, 1899.)

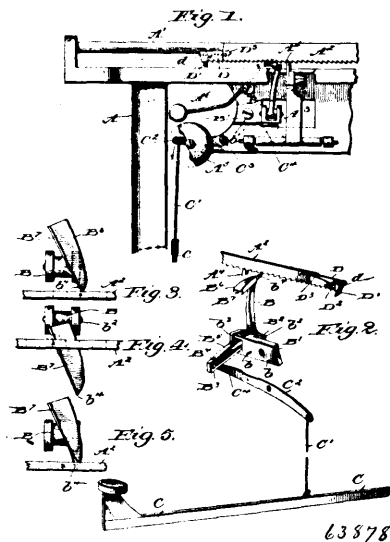
*Claim.*—1st. In a ball bearing, the combination of the bearing balls, the separating rollers having concave sides located between the balls and mounted on pivot pins with a suitable revolvable frame or cage which supports the pivot pins of the rollers, substantially as set forth. 2nd. In a ball bearing, the combination of the bearing balls, the separating rollers having concave sides located between the balls and mounted on pivot pins with a suitable revolvable frame or cage which supports the roller pins and retains the balls against accidental displacement, substantially as set forth. 3rd. In a ball bearing, the combination of the bearing balls, the separating rollers having concave sides located between the balls and mounted on pivot pins, with a revolvable frame or cage composed of a disc having suitable aperture K, at its sides through which the sides of the balls partially project and having slightly yielding outer hanging arms or brackets which support the outer ends of the pivot pins, with peripheral apertures or openings formed between the adjacent sides of said outer hanging arms slightly less in width than the diameters of the balls, substantially as and for the purpose set forth.

**No. 63,878. Typewriter. (Claviergraphie.)**

Thomas A. Maulsby, Fairmont, West Virginia, U.S.A., 14th September, 1899; 6 years. (Filed 27th December, 1898.)

*Claim.*—1st. A force feed attachment comprising a pivoted reversing dog provided with a single continuous contacting face extending at an angle to the pivotal point of said dog, substantially as specified. 2nd. In a force feed attachment, the combination with a movable carriage and its escapement mechanism embracing a spacing rack, of an independent laterally operating reversing dog provided with a contacting face extending at an angle to the pivoting point of said dog and having a yielding end engaging said rack, substantially as specified. 3rd. In a force feed attachment, the combination with a movable carriage and its escapement mechanism, of a laterally

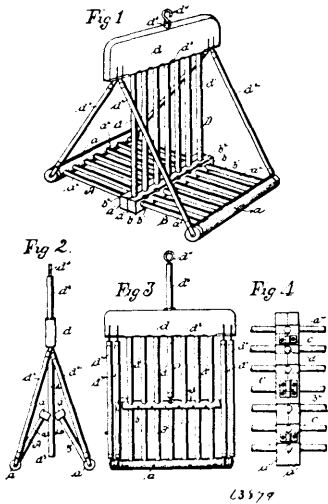
operating reversing dog provided with a single continuous contacting face extending at an angle to the pivoting point of said dog,



positive key board connections for moving said dog, and means for retracting the same to its initial position, substantially as specified. 4th. In a force feed attachment, the combination with a movable spacing rack and its escapement mechanism, of a reversing dog pivotally mounted and provided with a single continuous contacting face adapted to travel angularly of the path traversed by said rack, substantially as specified. 5th. In a force feed attachment, the combination with a moving spacing rack and its escapement mechanism, of a reversing dog pivotally mounted and provided with a single continuous contacting face adapted to travel laterally of the path traversed by said rack, an angle arm provided upon said dog, and positive key board connections for operating the arm, substantially as specified. 6th. In a force feed attachment, the combination with a moving spacing rack and its escapement mechanism, of a reversing dog pivotally mounted and provided with a single continuous contacting face adapted to travel laterally of the path traversed by said rack, and angle arm provided upon said dog, means for operating said arm, a spring for retracting the said dog to its initial position, substantially as specified. 7th. In a force feed attachment, the combination with a moving spacing rack and its escapement mechanism, of a reversing dog pivotally mounted and adapted to travel laterally of the path traversed by said rack, an angle arm provided upon said dog, means for operating said arm, a spring for retracting the said dog to its initial position, and an engaging face upon said dog extending diagonally to the pivot thereof, substantially as specified. 8th. In a force feed attachment, the combination with a moving spacing rack and its escapement mechanism, of a reversing dog pivotally mounted and adapted to travel laterally of the path traversed by said rack, an angle arm provided upon said dog, means for operating said arm, a spring for retracting said dog to its initial position, and an engaging face provided with a spring finger and extending diagonally to the pivot of said dog, substantially as specified. 9th. A force feed dog for typewriters comprising an arm provided at one end with an engaging flange and at the opposite end with a pivoting socket, said flange extending diagonally to the axis of said socket and being provided with a yielding end, substantially as specified. 10th. A force feed dog for typewriters comprising an arm provided at one end with a pivoting socket and an angle arm extending therefrom, a head at its opposite end provided with a flange at one edge having a spring end or finger, said flange extending at an angle to the axis of said socket, substantially as specified. 11th. In a force feed attachment, the combination with a support, of a force feed dog pivotally mounted therein and provided with an angle arm, a socket at the outer end of said arm, a spring sealed in said socket and engaging a portion of said support, and an engaging flange at one end of said dog and extending at an angle to the pivot thereof, substantially as specified. 12th. In a force feed attachment, the combination with a support, of a force feed dog pivotally mounted therein and provided with an angle arm, a socket at the outer end of said arm, a spring carried by said arm and engaging a portion of said support, an engaging flange at one end of said dog and extending at an angle to the pivot thereof, and centering lugs provided upon said support to govern the application of the same to a machine frame, substantially as specified. 13th. In a typewriter, the combination with a carriage, its spacing rack and escapement mechanism, of a pivoted reversing dog provided with a single continuous contacting face travelling laterally of said rack, a key lever mounted

in the frame, a rack arm adapted to engage said dog, and a positive key board connection between said arm and key lever, substantially as specified. 14th. In a typewriter, the combination with a carriage-spacing, escapement mechanism and force feed dog, of an extension carried by the rack and extended beyond the end thereof, a pivoted projection upon said extension provided with a finger or lug, a spring adapted to act upon said finger, and a striker arm upon the typewriter frame and lying in the path traversed by said projection, substantially as specified. 15th. In a typewriter, the combination with a carriage and the spacing rack carried thereby, of key operated escapement dogs pivoted upon the frame of the machine and operating in relation to said rack, and a reversing dog provided with a single continuous contacting face operating laterally of said rack and pivotally mounted upon the machine adjacent to said spacing dogs, substantially as specified. 16th. In a typewriter, the combination with a carriage and the spacing rack carried thereby, of positively operated escapement dogs pivoted upon the frame of the machine and operating in relation to said rack, a reversing dog provided with a single continuous contacting face operating laterally of said rack and pivotally mounted upon the machine adjacent to said rack, an engaging face on said dog extending at an angle to the pivotal point thereof, and a key lever positively connected to actuate said reversing dog, substantially as specified. 17th. In a typewriter, the combination with a carriage and toothed rack bar carried thereby, an escapement mechanism, a pivoted reversing dog operating laterally of said rack, and an engaging face on said dog provided with a spring finger to permit a yielding disengagement of the dog from the rack, substantially as specified. 18th. In a typewriter, the combination with a carriage provided with a toothed rack bar, a reversing dog pivotally mounted in a support carried by the machine, an engaging face upon said dog extending at an angle to the axis of said dog and provided with a spring finger, an angle arm extending from said dog, a spring interposed between said arm and said support, a rock arm engaging said angle arm, a key lever, and means connecting said rock arm and key lever, substantially as specified.

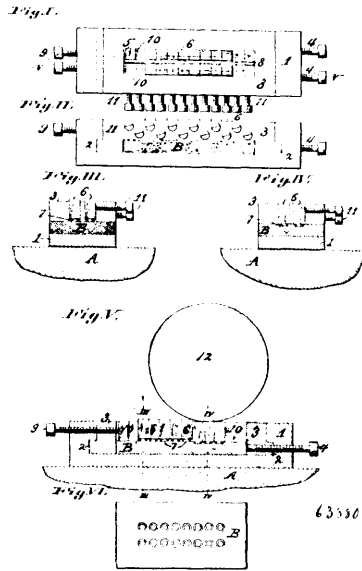
**No. 63,879. Bicycle Rack.** (*Ratelier pour bicycles.*)



Henry L. Wilcox, Great Barrington, Massachusetts, U.S.A., 14th September, 1899; 6 years. (Filed 4th February, 1899.)

*Claim.*—1st. In a bicycle rack, the combination with a base frame consisting of two parts, each part having a series of horizontal bars, of hinges uniting said two parts, and upright frame having a series of vertical bars, the lower end of which are adapted to pass through grooves in said base frame, said vertical bars corresponding to said horizontal bars, and one or more braces, substantially as described. 2nd. In a bicycle rack, the combination with a base frame consisting of two parts, of a hinge uniting said parts, a vertical frame secured to said base frame, and means for folding said base frame in a line with said vertical frame, substantially as described. 3rd. In a bicycle rack, the combination with a base frame consisting of two parts, each part having a series of horizontal bars, a hinge or hinges uniting said two parts, a vertical frame secured to said base frame, and means for folding said base frame in a line with said vertical frame, substantially as described. 4th. In a bicycle rack, the combination with a base frame consisting of two parts, each part having a series of horizontal bars, of a hinge or hinges uniting said two parts, a vertical frame having a series of vertical bars, braces adapted to secure said vertical frame to said base frame, and an adjustable bar secured to one of said hinges, substantially as described.

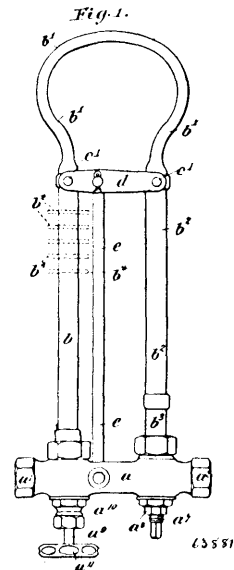
**No. 63,880. Machine for Making Embossing Dies.**  
(*Machine pour la fabrication de matrice à bosselage.*)



Alfred George Beater, St. Louis, Missouri, U.S.A., 14th September, 1899; 6 years. (Filed 27th June, 1899.)

*Claim.*—1st. An apparatus for making embossing dies, consisting of a frame adapted to receive a die plate and provided with a continuous pocket, punches located in said pocket adapted to be brought into contact with said die plate, and means whereby pressure may be effected against said punches and whereby said punches are imbedded in said die plate to produce the die, substantially as described. 2nd. An apparatus for making embossing dies, consisting of a frame adapted to receive a die plate, punches located in said frame adapted to be brought into contact with the said die plate, and a roller whereby pressure may be effected against said punches and whereby said punches are embedded in said die plate to produce the die, substantially as described.

**No. 63,881. Heat Regulating Device.**  
(*Appareil regulateur de la chaleur.*)

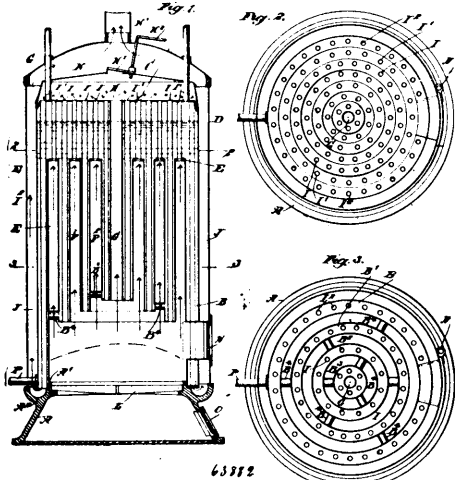


Frederick Lamplough, London, England, 14th September, 1899; 6 years. (Filed 5th July, 1899.)

*Claim.*—1st. In a heat regulating device capable of being used also as a steam trap and steam radiator, the combination with a valve body having an adjustable inlet valve and an adjustable outlet valve, of a looped expansion rod formed with two legs connected together by a flattened loop-shaped part, one of said legs being fixed rigidly to the valve body, whilst the end of the other is

capable of sliding in a stuffing box and acts as the outlet valve seat, a comparatively non-expanding rod attached at one end to the valve body, and a lever attached at each end to trunnions fixed on the legs of the expansion rod near their junction with the flattened loop part thereof and having its fulcrum at the upper end of the comparatively non-expanding rod, substantially as herein set forth and for the purpose stated. 2nd. In a heat regulating device capable of being used also as a steam trap and steam radiator, the combination with a valve body having an adjustable inlet valve and an adjustable outlet valve, of a looped expansion rod formed with two legs connected together by a flattened loop-shaped part, one of said legs being fixed rigidly to the valve body, whilst the end of the other leg is capable of sliding in a stuffing box and acts as the outlet valve seat, a comparatively non-expanding rod attached at one end to the valve body, and a lever attached at each end to trunnions fixed on the legs of the expansion rod near their junction with the flattened loop part thereof and having its fulcrum at the upper end of the comparatively non-expanding rod, and nearer to the fixed leg than to the sliding leg thereof, substantially as herein set forth.

**No. 63,882. Boiler. (Chaudière.)**

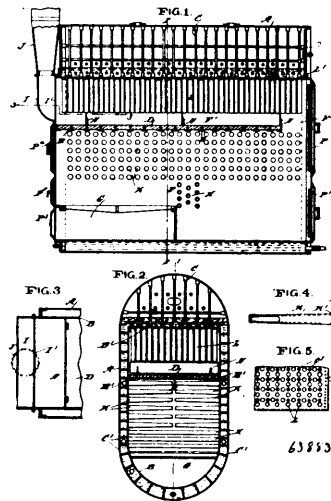


Jacob F. Klugh, Highspire, Pennsylvania, U.S.A., 14th September, 1899; 6 years. (Filed 10th July, 1899.)

*Claim.*—1st. A boiler comprising a series of concentric circular water sections, closed at the bottom and open at the top, and of which outermost section is extended below the others to provide space for a fire box, the sections being connected with each other at or near their lower ends, and a water and steam compartment in which terminate the upper, open ends of the said sections, the bottom of said compartment connecting the upper edges of adjacent sections with each other, substantially as shown and described. 2nd. A boiler comprising a series of concentric circular water sections, closed at the bottom and open at the top, and of which the outermost section is extended below the others to provide space for a fire box, the sections being connected with each other at or near their lower ends, a water and steam compartment in which terminate the upper, open ends of the said sections, the bottom of said compartment connecting the upper edges of adjacent sections with each other, pipes extending through the said sections and compartment, and a heat and smoke box into which open said pipes, substantially as shown and described. 3rd. A boiler comprising a series of concentric circular water sections, closed at the bottom and open at the top, and of which outermost section is extended below the others to provide space for a fire box, the sections being connected with each other at or near their lower ends, a water and steam compartment in which terminate the upper open ends of the said sections, the bottom of said compartment connecting the upper edges of adjacent sections with each other, pipes extending through said sections and compartment, and a second set of pipes leading from the heat spaces through said compartment, and a heat and smoke box into which open all the pipes, substantially as described. 4th. A boiler comprising a base formed with a seat and an annular groove, a series of concentric circular water sections, closed at the bottom and open at the top, the outermost section extending below the others and seated on said base, a grate on said base to form a fire box surrounded by the lower portion of the outermost section, a fire box opening into the heating space between adjacent sections, a water and steam compartment into which open the upper ends of said sections, a heat and smoke box on the top of said compartment, pipes leading from the heating spaces to said heat and smoke box, a second set of pipes extending through the sections and said compartment, to open into the heat and smoke box, pipes in the outermost section, opening at their lower ends into the groove of the base, and a draft and heating chamber surrounding the outermost section and connected with said

groove to receive the heat, smoke and gases from the pipes in the outermost section, substantially as shown and described. 5th. A boiler comprising a base formed with a seat and an annular groove, a series of concentric circular water sections, closed at the bottom and open at the top, the outermost section extending below the others and seated on said base, a grate on said base to form a fire box surrounded by the lower portion of the outermost section, a fire box opening into the heating space between adjacent sections, a water and steam compartment into which open the upper ends of said sections, a heat and smoke box on the top of said compartment, pipes leading from the heating spaces to said heat and smoke box, a second set of pipes extending through the sections and said compartment, to open into the heat and smoke box, pipes in the outermost section, opening at their lower ends into the groove of the base, a draft and heating chamber surrounding the outermost section, and connected with said groove, to receive the heat, smoke and gases from the pipes in the outermost section, and a dome into which opens the said draft and heating chamber, substantially as shown and described. 6th. A boiler comprising a base formed with a seat and an annular groove, a series of concentric circular water sections, closed at the bottom and open at the top, the outermost section extending below the others and seated on said base, a grate on said base to form a fire box surrounded by the lower portion of the outermost section, a fire box opening into the heating space between adjacent sections, a water and steam compartment into which open the upper ends of said sections, a heat and smoke box on the top of said compartment, pipes leading from the heating spaces to said heat and smoke box, a second set of pipes extending through the sections and said compartment, to open into the heat and smoke box, pipes in the outermost section, opening at their lower ends into the groove of the base, a draft and heating chamber surrounding the outermost section, and connected with said groove, to receive the smoke and gases from the pipes in the outermost section, a dome into which opens the said draft and heating chamber, and a valved connection between said heat and smoke box and said dome, substantially as shown and described.

**No. 63,883. Boiler. (Chaudière.)**



George Kingsley, Montreal, Quebec, Canada, 14th September, 1899; 6 years. (Filed 4th May, 1899.)

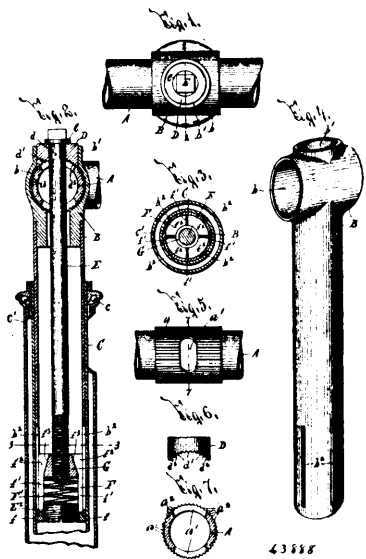
*Claim.*—1st. A boiler, comprising an inner and an outer shell for forming a water and steam compartment between the shells, a horizontal partition in the inner shell and extending from the front end thereof to which a distance of the rear end, to form upper and lower flame compartments connected with each other at their rear ends, a fire box in the front end of the lower compartment, horizontal conical water tubes projecting from the sides of the inner shell into the lower compartment, said tubes having their inner ends closed and their outer ends communicating with the steam and water space, and water tubes depending from the crown sheet in the upper flame compartment, substantially as shown and described. 2nd. A boiler, comprising an inner and an outer shell for forming a water and steam compartment between the shells, a horizontal partition in the inner shell and extending from the front end thereof to within a distance of the rear end, to form upper and lower flame compartments connected with each other at their rear ends, a fire box in the front end of the lower compartment, horizontal conical water tubes projecting from the sides of the inner shell into the lower compartment, said tubes having their inner ends closed and their outer ends communicating with the steam and water space, and water tubes depending from the crown sheet in the upper flame compartment, said depending tubes terminating above the said partition, substantially as shown and described. 3rd. A boiler, comprising an inner and an outer shell for forming a water





*Claim.*—The combination of a throttle valve 1, with stuffing boxes 3, 3, valve stem 2, with cross tees 4, 4, rigidly secured to same, rods 8, 8 and counter balance 9, 9, pipes 3, 5, and chamber 6, stuffing boxes 10, 10, with pipes 11, 11, running through the same and connecting with boiler 12 by pipes 13, 13.

**No. 63,888. Velocipede. (Bicycle.)**

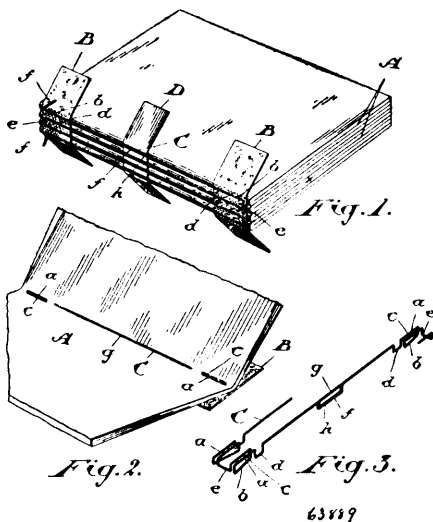


Patrick Henry Brennan, Syracuse, New York, U.S.A., 14th September, 1899; 6 years. (Filed 12th December, 1898.)

*Claim.*—1st. The combination of a supporting standard B having its lower end formed hollow and its upper end provided with an eye *b* and an opening *b*<sup>1</sup> extending outwardly from the inner face of the eye through the periphery thereof, a handle bar A mounted in the eye *b* and provided with a substantially upright perforation, *a*<sup>1</sup> extending from front to rear and formed of greater length than width, a clamping piece D provided with an aperture *d* and having one end arranged in said opening *b*<sup>1</sup> and formed with a concave lower face for engaging the handle bar, and its opposite end formed with a substantially flat upper face, an operating member E for operatively engaging the clamping piece with the handle bar, said operating member being passed through the aperture *d* in the clamping piece D and the perforation *a*<sup>1</sup> in the handle bar, and having one end engaged with the upper face of the clamping piece and its opposite end extended into the hollow portion of the standard, and a nut G adjustable lengthwise on the operating member within the hollow portion of the standard, for expanding said hollow portion, substantially as described. 2nd. The combination of a supporting standard B having an expandible inner end, and an eye *b* at its outer end provided with an opening *b*<sup>1</sup> extending outwardly therefrom, a handle bar A mounted in the eye *b*, a clamping piece D arranged within said opening for engaging the handle bar, a nut G supported within the inner end of the standard and operating to expand said end, and a revoluble operating member E for actuating the clamping piece D and the nut G, substantially as and for the purpose specified. 3rd. The combination of a supporting standard B having a portion thereof expandible, a substantially cylindrical expansion plug F arranged within the expandible portion of the standard and provided with outwardly movable portions or arms *f*<sup>2</sup> having engaging faces *f*<sup>3</sup>, a nut G for forcing said portions or arms *f*<sup>2</sup> outwardly, a revoluble operating member E within the standard engaged with the nut G for elevating the same, and a spring F<sup>1</sup> for forcing the nut against said engaging faces, substantially as and for the purpose set forth. The combination of a supporting standard B having a portion thereof expandible, a substantially cylindrical expansion plug F arranged within the expandible portion of the standard and having its lower end formed with an annular shoulder *f* engaged with the standard for limiting the upward movement of the plug, the upper end of said plug being provided with outwardly movable portions or arms *f*<sup>2</sup> having faces *f*<sup>3</sup> projecting toward each other, a nut G having a tapering end for engaging said faces and forcing the movable portions or arms *f*<sup>2</sup> of the plug outwardly, and an operating member E within the standard

engaged with the nut for elevating the same, substantially as and for the purposes described. 6th. The combination of a supporting standard B having a portion thereof expandible, a substantially cylindrical expansion plug F arranged within the expandible portion of the standard and having its lower end formed with an annular shoulder *f* engaged with the standard for limiting the upward movement of the plug, the upper end of said plug being provided with outwardly movable portions or arms *f*<sup>2</sup> having engaging faces projecting toward each other, a nut G having a tapering upper end for engaging said faces and forcing the movable portions or arms *f*<sup>2</sup> of the plug outwardly, an operating member E within the standard engaged with the nut for elevating the same, and a spring F<sup>1</sup> for normally elevating the nut, substantially as and for the purpose set forth. 7th. The combination of a supporting standard B having a portion thereof expandible and being provided at its upper end with an eye *b* and an opening *b*<sup>1</sup> extending outwardly therefrom, an expansion plug F arranged within the expandible portion of the standard and provided with outwardly movable portions or arms *f*<sup>2</sup> having engaging faces, a nut G having one end engaged with said faces, a handle bar A mounted in the eye, a clamping piece D arranged in the opening *b*<sup>1</sup> and formed with an aperture *d* extending therethrough, said clamping piece having its lower face engaged with the handle bar and an operating member E having one end engaged with the nut G and its other end passed through the aperture in the clamping piece and engaged therewith, substantially as and for the purpose specified.

**No. 63,889. Blank Book. (Blanc de livre.)**



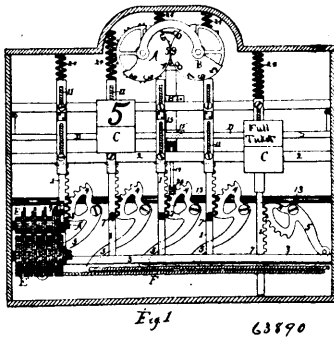
Charles Johnson, Toronto, Ontario, Canada, 14th September, 1899; 6 years. (Filed 15th December, 1898.)

*Claim.*—1st. In a blank book, two or more sections in combination with a strip of webbing to which each section is securely stitched, one section being secured to the next by a lock stitch formed by carrying the binding thread from one section out through the webbing, over the back of the webbing and through the webbing and the next section, substantially as and for the purpose specified. 2nd. In a blank book, a series of sections in combination with two strips of webbing to which each section is securely stitched, each section being secured at one end to the next above it and at the other end to the next below it by a lock stitch formed by carrying the binding thread from one section out through the webbing, over the back of the webbing and through the webbing and the next section, substantially as and for the purpose specified. 3rd. In a blank book, a series of sections in combination with two strips of webbing and a continuous binding thread which secures the first section to the first strip, passes to the second strip, secures the first section to the second strip, passes out through the webbing, passes to the second section, passes through the strip and the second section, secures the second section to the second strip, passes to the first strip, secures the second section to the first strip, passes out through the webbing and to the next strip as before, substantially as and for the purpose specified. 4th. In a blank book, a series of sections A in combination with two strips of webbing B, and a binding thread C securing the sections and the strips together, each section being secured to each strip by the stitches *a, b, c, d*, formed in the binding thread, and at one end to the section above, and at the other end to the section below by the lock stitches, *e*, substantially as and for the purpose specified. 5th. In a blank book, a series of sections A in combination with two strips of webbing B, a strip of vellum D, and a binding thread C, each section being secured to each strip of webbing by the stitches *a, b, c, d*, formed in the binding thread, and at one end to the section above and at the other end to the section below by the lock



stitches *e*, the vellum being held in place by the stitches *e, f, g*, substantially as and for the purpose specified. 6th. In a blank book, a cover and slides inserted in grooves at the inner edges of the cover in combination with the book proper, binding strips or flaps secured to the back of the book and to the slides and a metal plate adapted to clamp the slides in position, substantially as and for the purpose specified. 7th. In a blank book, a cover and dovetailed slides inserted in similarly shaped grooves at the inner edges of the cover in combination with the book proper, binding strips or flaps secured to the back of the book and to the slides, and means for retaining the slides in position, substantially as and for the purpose specified. 8th. In a blank book, a cover and dovetailed slides inserted in similarly shaped grooves at the inner edges of the cover in combination with the book proper, binding strips or flaps secured to the back of the book and to the slides, and a metal plate adapted to clamp the slides in position, substantially as and for the purpose specified. 9th. In a book, a cover in combination with one or more rubber studs secured to one side of the cover, substantially as and for the purpose specified. 10th. In a book, a cover in combination with one or more cupped rubber studs secured to one side of the cover, substantially as and for the purpose specified. 11th. In a book, a cover in combination with one or more rubber studs secured thereto, each comprising a rubber head and a rivet having its head embedded in the rubber, and its point clinched on the inside of the cover, substantially as and for the purpose specified.

**No. 63,890. Fare Register for Street Cars.**  
*Registre de billets pour chars de rue.*

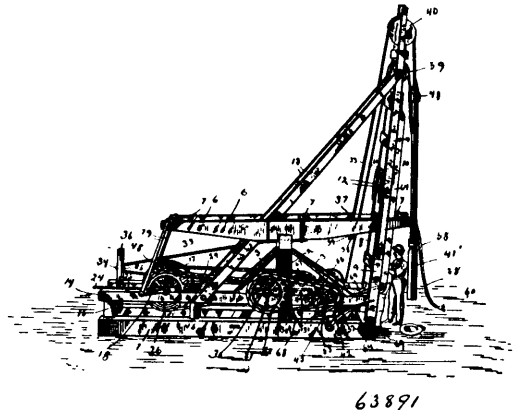


John F. Ohmer, Dayton, Ohio, U.S.A., 14th September, 1899; 6 years. (Filed 18th January, 1899.)

*Claim.*—1st. In a fare register, the combination with trip indicator wheels, of a reciprocative slide, an oscillating shaft extending across the machine, a pivotal connection between said shaft and said slide, and a plurality of racks geared to said oscillating shaft, each one of said racks being adapted to impart a similar movement to said oscillating shaft, substantially as described. 2nd. In a fare register, the combination with trip indicator wheels, a slide, and mechanism actuated thereby to advance said indicator wheels, of an oscillating shaft, a pivotal connection between said oscillating shaft and the slide, a series of racks geared to said oscillating shaft, and a series of toothed sectors geared to said racks, substantially as described. 3rd. In a fare register, the combination with trip indicator wheels, a slide, and mechanism between said slide and trip indicator wheels for imparting movement to the latter, of an oscillating shaft, a pivotal connection between said shaft and the slide, a series of racks geared to said shaft, and a series of oscillating gears geared to said racks, substantially as described. 4th. In a fare register, the combination with a series of fare indicators denoting the various fares, and a series of trip indicator wheels denoting the number of passengers, of a series of compound racks, a series of oscillating gears to impart movement to said racks and mechanism actuated by the movement of each of said racks to move the fare and trip indicators, substantially as described. 5th. In a fare register, the combination with a series of sliding fare indicators, and a series of rotating trip indicators, of a reciprocating slide, mechanism actuated by said slide to move the trip indicators, an oscillating shaft pivotally connected to said slide, a series of racks geared to said oscillating shaft, projections on said racks to engage with the fare indicators to lower them, and an oscillating gear geared to each of said racks, whereby each of said racks may be moved independently of the others to simultaneously impart movement to the trip indicators, and to a specific fare indicator, substantially as described. 6th. In a fare register, trip indicator wheels, in combination with a transverse oscillating shaft, a reciprocating slide pivotally connected to said shaft, mechanism actuated by said slide to turn the indicator wheels, a series of compound gears geared to said oscillating shaft, a toothed sector geared to each of said racks, and a series of sliding fare indicators one of which is simultaneously moved with each movement of the indicator wheels, substantially as described. 7th. In a fare register, fare register wheels arranged in series, each

series denoting a specific class of fares, a series of sliding fare indicators, each one of which denotes a specific kind of fare, and a series of trip indicator wheels denoting the number of passengers taken on in each trip, of a series of compound racks each one of which operates in connection with a specific class of fares, and a specific fare indicator, and all of said racks having a corresponding action on the trip indicator wheels, oscillating gears geared to said racks, and mechanism actuated by the movement of any one of said racks to actuate said fare register wheels, fare indicators, and the trip indicator wheels, substantially as described. 8th. In a fare register, the combination of trip indicator wheels, sliding fare indicators denoting the various fares, fare register wheels arranged in series, each series having its own classification of fares, and a series of independently movable parts, each one of which is adapted to actuate a specific fare indicator and set of fare register wheels, and to simultaneously and correspondingly move the trip indicator wheels, substantially as described. 9th. The combination with a fare register having an indicating dial, and a finger to point to the indications thereon, an auxiliary dial placed at various points and having indications thereon corresponding with the indications on the dial of the fare register, of an operating rod movable both axially and longitudinally, pointers on said rod adapted to be moved to simultaneously indicate a corresponding fare on the auxiliary dial, and connections between the dial on the fare register and operating rod, whereby a similar fare is simultaneously indicated on the fare register dial, substantially as described. 10th. In a fare register, the combination of trip indicator wheels, three or more series of register wheels, each series registering a single class of fares, three or more fare indicators denoting the various fares, and mechanisms for actuating a specific fare indicator and a specific series of fare register wheels, and to simultaneously and correspondingly move the trip indicator wheels, substantially as described.

**No. 63,891. Oil Well Drill.** (*Foret pour puits à huile.*)



John H. Moore, Wellsville, Ohio, U.S.A., 14th September, 1899; 6 years. (Filed 22nd February, 1899.)

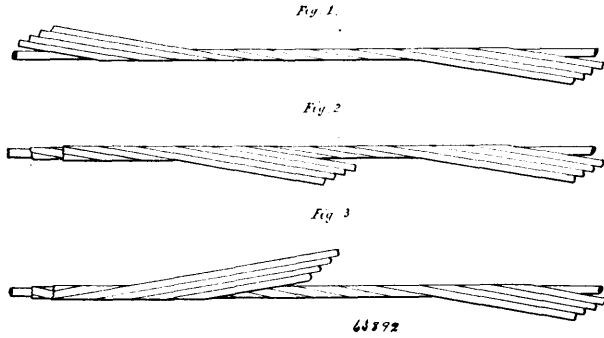
*Claim.*—An oil well drilling machine, comprising the main frame 1, the auxiliary frame 14, mounted parallel therewith, the vertical double samson posts 2 2, fixed at their lower ends to said main and auxiliary frames, the saddle 4, connecting the upper ends of said samson posts, the double parallel walking beams 6 6, the bearing shoes 5 5, fixed to said beams and having a bearing in said saddle, the derrick 10, connected at its lower end to said main and auxiliary frames, the section 11, hinged to the derrick 10, and the removable braces 64 65, detachably secured to the abutting hinged ends of said derrick, and the detachable diagonal braces 13, connecting the hinged portion of the derrick with the auxiliary frame, the stanchion 36, provided with the pulley 34, and fixed to the frames 1 and 14, the counter shaft 31, journaled in the frame 14, the drum 32, fixed on said counter shaft, the cable 33, extending from said drum over the pulley 34, thence over the pulley 37, mounted between the beams 6 6, and over the crown pulley 40, journaled in the upper end of the derrick, substantially as shown and described.

**No. 63,892. Electric Cable.** (*Cable électrique.*)

Willoughby Stratham Smith, 13 Courtfield Road, South Kensington, Middlesex, England, 14th September, 1899; 6 years. (Filed 2nd March, 1899.)

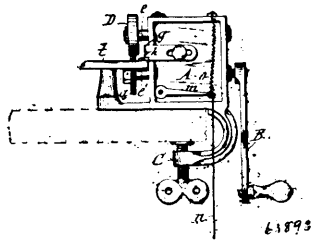
*Claim.*—1st. The combination of a single solid metallic conductor, and tapes of the same metal as the conductor helically wound on it, and in electrical connection with it, the diameter of the central conductor being largely in excess of the thickness of the tape, or their combined thickness, when two or more layers are used. 2nd. The combination of a single, solid, cylindrical, metallic conductor of comparatively large area, in cross section, and a relatively thin tape of the same metal as the conductor, helically wound on it and in close contact and electrical connection with it, the area in cross section of the central or solid conductor in the tape covered conduc-

tor being in excess of the area in cross section of the tape portion thereof. 3rd. The combination of a single, cylindrical, metallic



conductor and tapes of the same metal as the conductor, helically wound on it and in electrical connection with it, the area in cross section of the central conductor being in excess of the area in cross section of the tape covering thereof.

**No. 63,893. Rotary Cutter. (Coupoir rotatif.)**

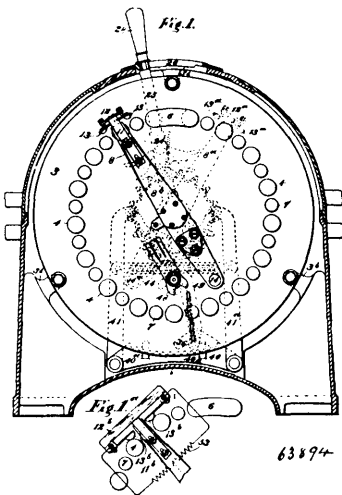


Henry Ansel Hannum, Cazenovia, New York, U.S.A., 14th September, 1899; 6 years. (Filed 6th June, 1898.)

*Claim.*—As an improved article of manufacture, a circular pinking cutter consisting of a disc of sheet steel having its marginal portion bent into successive arches extending around the periphery thereof, and provided therewith with a continuous zig zag cutting edge, bevelled cold chisel shape, as set forth.

**No. 63,894. Switch for Electric Circuits.**

(Commutateur pour circuits electriques.)



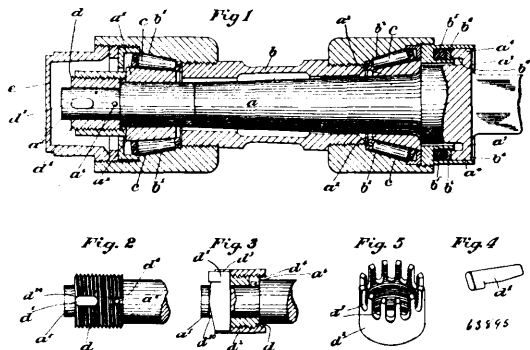
The Westinghouse Electric and Manufacturing Company, Pittsburgh, assignees of Harry P. Davis, Pittsburgh, and Gilbert Wright, Wilkinsburg, all of Pennsylvania, U.S.A., 16th September, 1899; 6 years. (Filed 11th July, 1899.)

*Claim.*—1st. In a switch for electric circuits, the combination with two sets of annularly arranged stationary contacts, a pivoted co-operating contact arm for each set of stationary contacts, a

single pivoted operating lever having a limited reciprocatory movement, and means intermediate the lever and each contact arm whereby said arms may be oppositely moved from one stationary contact to the next through the entire set in either direction. 2nd. In a switch for electric lights, the combination with two annularly arranged sets of stationary contacts, a co-operating contact arm for each set of stationary contacts provided with a ratchet wheel, a single pivoted operating lever having a limited reciprocatory movement, two reversible pawls pivoted to said lever, and means for retaining them in either operative position, whereby the contact arms may be oppositely moved step by step in either direction. 3rd. An electromotive force regulating switch for two-phase circuits, comprising two non-conducting base plates, two sets of stationary contact pieces mounted respectively on said base plates, corresponding movable contact arms, a reciprocating actuating lever, and pawl and ratchet mechanism between said lever and each of said movable contact arms, whereby these latter are moved one step in opposite directions by each double stroke of the operating lever. 4th. An electromotive force regulating switch for two-phase electric circuits, comprising two sets of stationary contact terminals, one for each phase, two corresponding movable contact arms, a reciprocating lever, and pawl and ratchet mechanism between said lever and each of said movable contact arms, whereby a complete double stroke of the lever serves to move said contact arms one step in opposite directions. 5th. An electromotive force regulator for two-phase circuits, comprising two base plates, a supporting frame therefor, two sets of stationary contact terminals, two corresponding movable contacts, a ratchet rigidly connected to each of said movable contacts, a pivoted operating handle, a double acting pawl for each ratchet pivoted to said handle, and means for adjusting each pawl so as to actuate its ratchet in either direction. 6th. In a switch for electric circuits, the combination with two sets of annularly arranged stationary contacts, a contact arm and ratchet wheel for each set, a two-part operating lever having a reversible pawl for each ratchet wheel pivoted to the inner part of the lever, and elastic means connecting each pawl with the outer part of the lever, whereby a partial rotation of the latter will reverse the pawls. 7th. In a switch for electric circuits, the combination with an annularly arranged series of stationary contacts, a pivoted co-operating contact arm provided with a ratchet wheel, a pivoted operating lever provided with a reversible pawl and having a limited reciprocatory movement, and means for preventing a reversal of movement of the lever before the completion of a stroke in either direction. 8th. In a switch for electric circuits, the combination with an annularly arranged set of stationary contacts, a co-operating contact arm having a ratchet wheel, an operating lever provided with a reversible pawl, a reversible dog pivoted to the operating lever and a notched plate or bar provided with stops for tripping or reversing the dog at the end of a stroke in either direction, the notches in said bar or plate preventing a reverse movement of the lever before it has made a complete stroke. 9th. In a switch for electric circuits, the combination with a series of annularly arranged stationary contacts, a pivoted contact arm having a ratchet wheel, a holding pawl for said ratchet wheel, a pivoted reciprocatory operating lever provided with a reversible actuating pawl, a holding pawl, and a reversible stop piece carried by the ratchet wheel. 10th. In a switch for two electric circuits, the combination with two sets of annularly arranged stationary contacts, two co-operating contact arms provided with ratchet wheels, a pivoted operating lever provided with reversible pawls for actuating said ratchet wheels alternately, two holding pawls, one for each ratchet wheel, connected by a spring and an automatically reversible stop piece pivoted to each ratchet wheel. 11th. The combination with two sets of annularly arranged stationary contacts, a co-operating contact arm for each set, means for moving said arms from one contact to the next alternately and in opposite directions, and means for stopping said arms when they have a predetermined distance. 12th. The combination with a transformer, of an annularly arranged series of stationary contacts connected to leads from a subdivided portion of the transformer winding, a contact arm movable step by step to cut said portion of the winding progressively either into or out of circuit, and an auxiliary switch actuated by the contact arm when the subdivided portion is all cut, either in or out, to simultaneously cut out or re-insert said subdivided portion and insert or cut out another substantially equal portion. 13th. The combination with two transformers, the winding of each of which has a portion subdivided by leads, two sets of annularly arranged stationary contacts to which said leads are connected, contact arms for said sets of stationary contacts, means for moving the same oppositely step by step in either direction, and an auxiliary switch for each transformer and set of contacts, which is actuated by the corresponding arm when the subdivided portion is all cut either in or out to simultaneously cut out or reinsert the subdivided portion and insert or cut out another portion of the winding of substantially the same length. 14th. An electromotive force regulator for two-phase circuits, comprising a transformer for each circuit, a set of stationary contacts for each transformer respectively connected to different points in one of its windings, a movable contact arm for each set of stationary contacts, and means for moving said contact arms oppositely and alternately in either direction from contact to contact, whereby the relation between the respective windings of the two transformers is varied to the same degree.

No. 63,895. Antifriction Bearings.

(Cousinet de tourillon sans friction.)

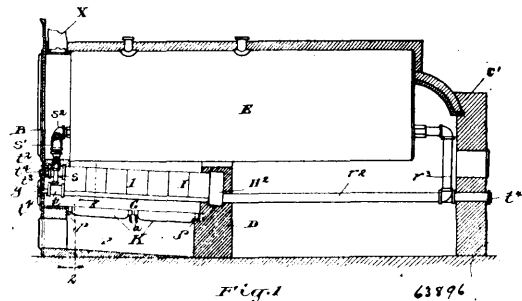


The Grant Axle & Wheel Company, assignee of Arthur W. Grant, all of springfield, Ohio, U.S.A., 16th September, 1899; 6 years. (Filed 22nd June, 1899.)

Claim.—1st. The combination, in antifriction bearing, of a spindle and a hub, a sleeve on said spindle, and a nut on said sleeve, a linchpin extending through said spindle and adapted to engage with said nut and sleeve, substantially as and for the purpose specified. 2nd. The combination, in an antifriction bearing, of the spindle having the reduced portion, a sleeve thereon, a linchpin extending through said spindle and engaging with the notches in said sleeve, a nut screwthreaded on said sleeve and having engaging notches to engage said linchpin, substantially as specified. 3rd. The combination with the antifriction bearings, as described, of the spindle having a pin or projection, a sleeve notched to fit said pin or projection, a linchpin extending through openings in said sleeve and spindle and a screwthreaded nut on said sleeve having notches to engage said linchpin whereby the same is held in different positions of adjustment, substantially as specified. 4th. The combination with the spindle and hub, of the cones on said spindle and rollers between said cones and hub, one of said cones being longitudinally movable as described, an annular flange on said spindle, an annular chamber in said hub, and elastic packing such as rubber, in said chamber, and a wearing ring, such as vulcanite, between said flange and packing, a sleeve on said spindle, a nut on said sleeve, said sleeve and nut being held by a linchpin extending through said spindle, one end of said nut contacting with the movable cone, substantially as and for the purpose described.

No. 63,896. Steam Boiler Furnace.

(Fournaise de chaudières à vapeur.)

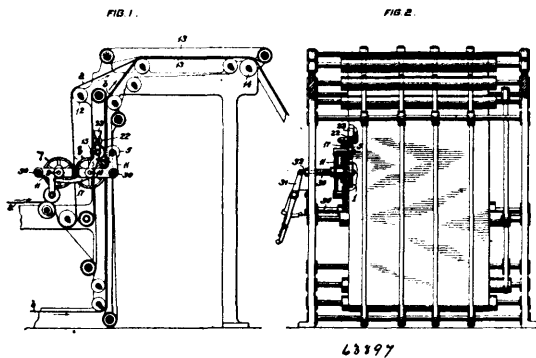


Orland D. Orvis and Charles W. Adams, both of Chicago, Illinois, U.S.A., 16th September, 1899; 6 years. (Filed 20th April, 1899.)

Claim.—1st. In a boiler furnace, the combination of a grate, an arch inclining downward in the backward direction and spanning said grate, and a discharge passage at one side only of said arch and in a plane between the lower edge of the arch and upper surface of said grate, the arch being formed of a frame, comprising longitudinally extending water circulating tubes in communication at opposite ends with the boiler, and a body portion of refractory material supported upon the frame and filling out the space between the said tubes, substantially as described. 2nd. In a boiler furnace, the combination of two grate surfaces separated by a close longitudinally extending bed, an arch spanning each of said grate surfaces, an updraft passage between the arches above said bed, discharge passages at the adjacent sides of said arches only leading to the updraft passage, the arches being formed of frames, comprising longitudinally extending water circulating tubes in communication at opposite ends with the boiler, and body portions of refractory material supported upon the frames and filling out the spaces between the tubes, substantially as described. 3rd. In a boiler furnace, the combination

of two grate surfaces separated by a close longitudinally extending bed, an arch spanning each of said grate surfaces, an updraft passage between the arches above said bed, discharge passages at the adjacent sides of said arches only leading to the updraft passage, the arches being formed of frames, having longitudinally extending water circulating tubes  $t, t^1, t^2$ , inclined downward in the backward direction, and in communication at opposite ends with the boiler, and body portions of refractory material supported upon the frames and filling out the spaces between the tubes, substantially as described. 4th. In a furnace, the combination of an arch, comprising longitudinally water circulating conduits and a body portion formed of sections of refractory material fitting against and supported by the conduits, a grate surface spanned by said arch, and a discharge passage at one side only of said arch and in a plane between the lower edge of the arch and said grate surface, substantially as and for the purpose set forth. 5th. In a furnace, the combination with the ash pit and two parallel companion arches separated by an updraft passage and having outlets at their adjacent lower sides only communicating with said passage, of a grate below each said arch and spanned thereby, and a draft deflector between the grates centrally beneath said passage and extending longitudinally above the ash pit the deflector being supported to leave an open air circulating space beneath it, and being of a width not less than the distance between the inner lines of the adjacent edges of the arches, substantially as and for the purpose set forth. 6th. In a furnace, the combination of an arch, closed at the rear end, a grate surface spanned by said arch, a discharge passage at one side only of said arch and in a plane between the lower edge of the arch and said grate surface, a feed opening for fuel at the front end of the space covered by the arch, and a draft opening at the rear end of the said space above the plane of the said discharge passage, substantially as and for the purpose set forth. 7th. In a boiler furnace, the combination with a horizontally disposed cylindrical boiler, of a fire chamber below one end portion of the boiler, and a bridge wall at the end of said fire chamber, of substantially crescent shape at its upper edge, whereby it extends below and up opposite sides of the boiler, and the space between it and the boiler is largest below centre portion of the boiler, substantially as and for the purpose set forth.

No. 63,897. Printing Press. (Presse à imprimer.)



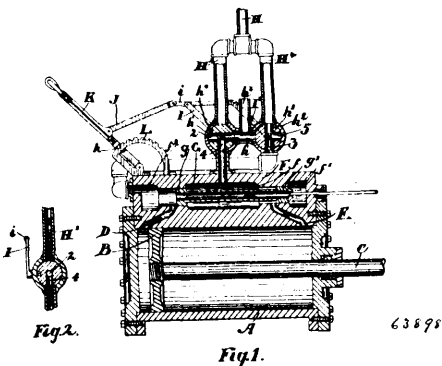
Louis Larsen Carson and Albert Friedsam, both of Pittsburg, Pennsylvania, U.S.A., 16th September, 1899; 6 years. (Filed 12th May, 1899.)

Claim.—1st. In a printing press attachment, the combination of means for fastening two or more sheets of newspaper together, and means for perforating one or more of the sheets around the point of attachment, substantially as set forth. 2nd. The combination of means for partially severing or isolating portions of one or two or more webs of paper passing through a press and means for so applying paste to portions of one of said webs that when the two webs are superposed one upon the other, the partially severed portions will adhere to the adjacent web, substantially as set forth. 3rd. The combination of means for partially severing or isolating portions of one of two or more webs of paper passing through a press and means for applying paste to the inner surfaces of the partially severed portions, substantially as set forth. 4th. The combination of a pair of perforating rolls arranged to partially sever or isolate portions of one of two or more webs of paper passing through a press, a roll for so applying paste to portions of one of said webs that when the webs are superposed one upon the other the partially severed portion will adhere to the adjacent web, and means for applying paste to said roll, substantially as set forth. 5th. The combination of a pair of perforating rolls arranged to partially sever or isolate portions of one of two or more webs of paper passing through a press, a roll for so applying paste to portions of one of said webs that when the webs are superposed one upon the other, the partially severed portions will adhere to the adjacent web and means for shifting said paste applying roll, substantially as set forth. 6th. A feed mechanism for printing presses, constructed to effect the onward movement of two webs or sheets of paper and to arrange such webs or sheets against each other, in combination with a pair of rolls arranged on opposite sides of the path of movement of one of said webs or sheets,

a series of needles carried by one of said rolls and arranged to partially sever or isolate a portion of said web or sheet, and means for shifting said needles into and out of operative position, substantially as set forth. 7th. A feed mechanism for printing presses, constructed to effect the onward movement of two webs or sheets of paper and to arrange such webs or sheets against each other, in combination with a pair of rolls arranged on opposite sides of the path of movement of one of said webs or sheets, a series of needles carried by one of said rolls and arranged to partially sever or isolate a portion of said web or sheet, means for shifting said needles into and out of operative position, means for applying paste to one of the sheets in such manner that the severed or isolated portion of one web or sheet will adhere to the other web or sheet when the webs or sheets are placed together, substantially as set forth. 8th. A feed mechanism for printing presses, constructed to effect the onward movement of two webs or sheets of paper and to arrange such webs or sheets against each other, in combination with a positively driven roll having a peripheral speed equal to that of the movement of the paper through the press and arranged in the path of movement of one web or sheet, a series of needles carried by said roll and arranged to partially sever or isolate a portion of said web or sheet, and a stationary cam for shifting said needles, substantially as set forth. 9th. A feed mechanism for printing presses, constructed to effect the onward movement of two webs or sheets of paper and to arrange such webs or sheets against each other, in combination with a roll arranged in the path of movement of one of the webs or sheets, a series of needles carried by said roll and arranged to partially sever or isolate a portion of the web or sheet, means for shifting the needles into and out of operative position during the rotation of the roll, a paste applying block arranged to operate on the partially severed or isolated portion of the sheet or web, and means operated by the roll for applying paste to the block, substantially as set forth.

#### No. 63,898. Steam Engine Reversing Gear.

(*Lever de changement de marche de machine à vapeur.*)



George Gilmore and John Hawthorne, both of Simcoe, Ontario Canada, 16th September, 1899; 6 years. (Filed 18th April 1899.)

*Claim.*—1st. In a steam engine, the combination with the cylinder and piston and ports of the cylinder and the valve chest provided with the central and end enlargements and the hollow tubular valve deriving movement as specified, of the inlet pipe, and the branch pipes, one leading from the inlet pipe to the central enlargement of the valve chest and the other leading from the inlet pipe to the end enlargement of the valve chest, the three-way cocks located intermediate of the length of these pipes and having their chambers connected together by a suitable pipe having an exhaust opening and means for operating the cocks simultaneously so as to make one an exhaust and the other the inlet passageway to the chest, as and for the purpose specified. 2nd. In a steam engine, the combination with the cylinder and piston and ports of the cylinder and the valve chest provided with the central and end enlargements and the hollow tubular valve deriving movement as specified, of the inlet pipe and the branch pipes, one leading from the inlet pipe to the central enlargement of the valve chest and the other leading from the inlet pipe to the end enlargement of the valve chest, the three-way cocks located intermediate of the length of these pipes and having their chambers connected together by a suitable pipe having an exhaust opening, and arms connected to the ends of the cocks, the link connecting the arms together, the lever, and the link connecting the aforesaid link to the lever, as and for the purpose specified.

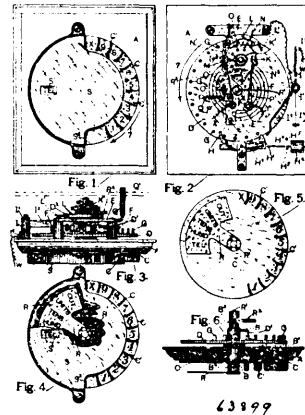
#### No. 63,899. Telephone Exchange Calling Device.

(*Appareil d'appel pour échanges de téléphones.*)

The Stronger Automatic Telephone Exchange, assignee of Alexander E. Keith, all of Chicago, Illinois, U.S.A., 16th September, 1899; 6 years. (Filed 1st October, 1898.)

*Claim.*—1st. A transmitter for sending electrical impulses over a plurality of lines comprising a step by step circuit breaker to send a

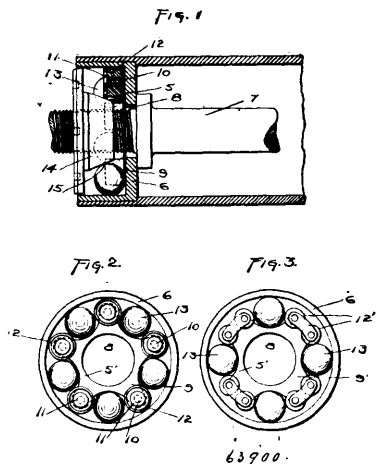
series of impulses, a circuit changer for directing the currents over a selected line, and a connection between the circuit breaker and the



circuit changer constructed to actuate the circuit changer each time that the circuit breaker is operated through its course, substantially as set forth. 2nd. The combination of a movable device having a series of adjacent finger holds, a circuit breaker actuated on movement of the device to send a number of impulses corresponding to the selected holds, and a single stop arranged to contact with the finger in the finger holds and limit the movement thereof, substantially as set forth. 3rd. The combination, with a circuit breaker, of a circuit changer for directing the current over different lines, a series of finger holds, and means for automatically operating the changer each time the finger holds are operated, substantially as set forth. 4th. The combination, with a circuit breaker, of a circuit changer for directing the current over different lines, a series of finger holds, and a stop for automatically limiting the number of times that the changer may be operated, substantially as set forth. 5th. The combination, with a circuit breaker, of a circuit changer for directing the current over different lines, an indicator, a series of consecutively arranged finger holds, substantially as set forth. 6th. The combination, with a circuit changer for directing the current over different lines, of a circuit breaker, a series of finger holds, and means for operating the changer once for each operation of the finger holds and means for varying the number of times the circuit breaker is operated, substantially as set forth. 7th. The combination, with a circuit changer for directing the current over different lines, of a circuit breaker, a wheel common to both and provided with means for operating the changer but once, and the breaker a variable number of times each time the wheel is rotated, and the means for operating the wheel, substantially as set forth. 8th. The combinations with a circuit changer for directing the current over different lines, of a circuit breaker, a wheel common to both and provided with means for operating the changer when rotated in one direction and the breaker when rotated in the opposite direction, and means for operating the wheel, substantially as set forth. 9th. In a calling device, the combination, with a disc, the periphery of which is provided with a series of finger holds, a stop adjacent thereto, of a make and break device, two wheels, one of which is provided with means for operating the other one and also for operating the make and break device, substantially as set forth. 10th. In a calling device, the combination, with a series of finger holds, of a wheel provided with pins, a portion of said pins being electric conductors, a make and break device, a retarding device, said pins being adapted to simultaneously operate the retarding device and the make and break, substantially as set forth. 11th. In a calling device, the combination, with a series of finger holds, of a ratchet wheel and a pin wheel, a pawl on the pin wheel adapted to engage with the ratchet wheel, of a make and break device, and two electro magnets, either one of which is adapted to be placed in circuit by the rotation of the ratchet wheel, substantially as set forth. 12th. In a calling device, the combination with a series of finger holds, of a ratchet wheel provided with pins, contact points adapted to be engaged by said pins, a make and break device, and means for rotating the ratchet wheel by the movement of the finger holds, substantially as set forth. 13th. In a calling device, the combination, with a series of finger holds, of a spring actuated wheel connected therewith, a ratchet wheel adapted to be moved one step for each operation of the finger holds, a detent for holding said ratchet wheel, a make and break device, and means for automatically releasing the ratchet wheel by hanging up the transmitter of the telephone, substantially as set forth. 14th. In a calling device, the combination, with a series of finger holds, of a pin wheel connected therewith, a make and break device, and two pallets, one of which is disconnected from the other when the pins are moving in one direction but caused to engage therewith when moved by said wheel in the opposite direction, substantially as set forth. 15th. In a calling device, the combination with a case, of a disc journaled therein, a portion of the

periphery of which is provided with finger holds, an indicator connected with the disc, the top of the casing being cut away at one side to form a stop, and at another point to expose a portion of the indicator, and a make and break device, substantially as set forth.

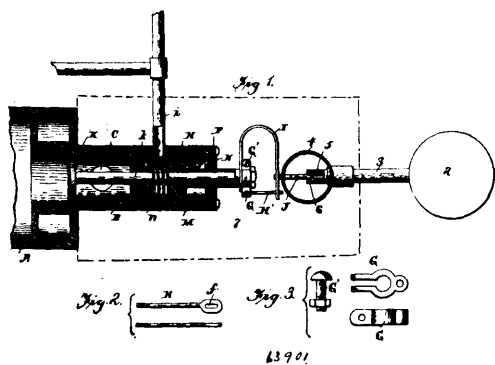
**No. 63,900. Ball and Roller Bearing.**  
(*Coussinet à roulettes.*)



Jonathan Waterbury and Herman Geiger, both of New York City, New York, U.S.A., 16th September, 1899; 6 years. (Filed 27th March, 1899.)

*Claim.*—1st. In a ball and roller bearing, a cup consisting of an annular band and an inwardly directed flange, a cone mounted on the axle in the open end of said cup, bearing balls mounted between said cup and said cone, a plate mounted in said cup and bearing with its plain side against the flange thereof, and rollers mounted on the opposite side of said plate and separating said balls, substantially as and for the purpose hereinbefore set forth. 2nd. In a ball and roller bearing, a cup consisting of an annular band and an inwardly directed flange, a cone mounted on the axle in the open end of said cup, bearing balls mounted between said cup and said cone, a plate mounted in said cup and bearing with its plain side against the flange thereof, said plate being provided with radial arms, stub shafts on radial arms on the side opposite to said flange and rollers mounted on said stub shafts, said bearing balls being separated by said rollers, and being greater in diameter than said rollers, substantially as and for the purpose hereinbefore set forth.

**No. 63,901. Gasoline Engine Feeder.**  
(*Alimentateur de machine à gazoline.*)

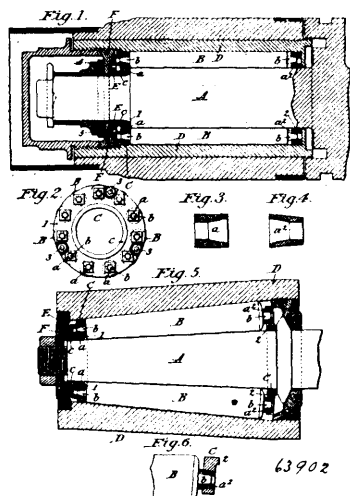


Alexander Winton, Cleveland, Ohio, U.S.A., 19th September, 1899; 6 years. (Filed 7th August, 1899.)

*Claim.*—1st. An explosive engine comprising an explosive inlet valve, an oil exit, a valve therefor, a spring having one end connected with the explosive inlet valve and its opposite end connected with the oil exit valve, and a connection between the explosive inlet valve and the end of the said spring which is connected to the oil exit valve, substantially as described. 2nd. An explosive engine comprising an explosive inlet valve, an oil exit, a valve therefor, a spring having one end connected with the explosive inlet valve, and its opposite end connected with the oil exit valve, and a connection with the oil exit valve, and a connection having one end connected with the explosive inlet valve and its opposite end holding but allowing the spring a slight backward movement, substantially as described. 3rd. An explosive engine comprising an explosive inlet

valve, an oil exit, a valve therefor, a spring having one end connected with the explosive inlet valve and its opposite end connected with the oil controlling valve, and a member having one end connected with the explosive inlet valve and its opposite end provided with an elongated opening to receive the spring and permit it to have a slight backward movement, substantially as described. 4th. An explosive engine comprising an explosive inlet port, a valve therefor, an oil exit, a valve for said oil exit, a spring having one end connected with the explosive inlet valve and its opposite end connected with the oil controlling valve, a rod adjustably connected with the explosive inlet valve and its opposite end provided with an elongated slot or way, which holds the tension of the spring but permits it to have a backward movement, the parts operating as described. 5th. An explosive engine comprising an explosive inlet valve, an oil exit, a valve therefor, a U-shaped expanding spring having one end connected with the stem of the explosive inlet valve, and its opposite end connected with the oil controlling valve, a rod having one end connected with the explosive inlet valve and its opposite end provided with a slot or way receiving and controlling the movement of the spring and the oil exit valve, substantially as described. 6th. An explosive engine comprising an explosive valve, a stem therefor, the outer end of the stem being screw-threaded, a U-shaped spring having one end receiving the screw-threaded end of the valve, a clamping nut therefor, an oil exit, a valve therefor connected to the opposite end of the U-shaped spring, a rod connected with the said clamping nut at one end and its opposite end connected with the free end of the U-shaped spring, substantially as described. 7th. An explosive engine comprising an explosive inlet port, a cylinder or chamber projecting from the engine cylinder, a valve for the said inlet, the valve stem passing through the said cylinder and carrying an oil controlling valve, an oil exit controlled by the said valve, a piston carried by the stem within the cylinder, and a cover for said cylinder, the cylinder beyond the piston having an escape whereby the valves are prevented from suddenly seating themselves, substantially as described. 8th. An explosive engine comprising a cylinder having an explosive inlet port, a valve stem cylinder or chamber projecting therefrom, a valve for the said explosive inlet port, having a stem passing through the said valve stem cylinder, and carrying an oil controlling valve, an oil exit controlled thereby, the stem having a piston within the cylinder, a cover for the end of the cylinder, and an opening in the cylinder beyond the said piston, substantially as described. 9th. An explosive engine comprising an explosive inlet port, a valve therefor having a stem, an oil exit, an oil controlling valve for said exit connected with the explosive inlet valve stem, and a dash pot situated between the said valves, substantially as described. 10th. An explosive engine having an explosive inlet port, a valve therefor having a stem, an oil exit, a valve controlling said exit and connected with the explosive inlet valve stem, and a dash pot common to and controlling both valves, substantially as described.

**No. 63,902. Antifriction Bearing.**  
(*Coussinet de tourillon sans friction.*)



William John Brewer, London, Middlesex, England, 19th September, 1899; 6 years. (Filed 14th July, 1899.)

*Claim.*—1st. In means for the reduction of the friction of axles and journals, the combination of longitudinal antifriction rollers, a cradle for said rollers comprising end rings provided with renewable and interchangeable wear parts to co-act with said rollers and means for adjusting said end rings to take up wear, substantially as described. 2nd. In means for the reduction of friction of axles and journals, the combination with longitudinal antifriction rollers, of a cradle for said rollers composed of rings provided with renewable and interchangeable wear parts to co-act with said rollers, and

through bolts for adjusting said end rings towards each other to take up wear, substantially as described. 3rd. As an improved means for reducing the friction of axles and journals, a set of rollers in combination with a cradle uniting the same, adapted to revolve therewith, and comprising end ring sections forming roller sockets bi-sected by radial joints between said sections, and means for contracting the cradle to take up wear, substantially as described. 4th. As improved means for reducing the friction of axles or journals, a set of shoulderless longitudinal rollers in combination with a cradle uniting the same, adapted to revolve therewith, and comprising ring sections forming roller sockets bi-sected by radial joints between said sections, and means for contracting the cradle to take up wear, substantially as described. 5th. As improved means for reducing the friction of axles or journals, a set of longitudinal rollers in combination with a cradle uniting the same, adapted to revolve therewith, and comprising end ring sections forming roller sockets bi-sected by radial joints between said sections and provided with removable wear parts, and means for separately uniting said sections, substantially as described. 6th. As improved means for reducing the friction of axles or journals, a set of longitudinal rollers in combination with a cradle uniting the same, adapted to revolve therewith, and comprising end ring sections forming roller sockets bi-sected by radial joints between said sections and provided with renewable and interchangeable wear parts, and means for separately uniting said sections, substantially as described. 7th. In a roller bearing, the combination with longitudinal rollers, of a cradle comprising ring sections forming roller sockets bi-sected by radial joints between said sections and constructed with circumferentially grooved hub portions, contractible circumferential bands occupying such grooves, and means for contracting said bands to take up wear, substantially as described. 8th. In a roller bearing, the combination with longitudinal rollers of a cradle comprising end ring sections forming roller sockets bi-sected by radial joints between said sections and constructed with rod admitting notches and circumferentially grooved hub portions, tie rods occupying said notches, rings external to the end rings engaged by said rods, contractible circumferential bands occupying said grooves, and means for contracting said bands to take up wear, substantially as described. 9th. In a roller bearing, the combination with longitudinal rollers, of a cradle comprising end ring sections forming roller sockets bi-sected by radial joints between said sections and constructed with rod admitting notches and circumferentially grooved hub portions, tie rods occupying said notches, rings external to the end rings engaged by said rods, contractible circumferential bands occupying said groove and having perforated end lugs, screw bolts co-acting with said lugs to contract said bands to take up wear, and bolt holders interlocking with the heads of said bolts and the contiguous lugs to facilitate adjustment, substantially as described. 10th. In means for the reduction of the friction of axles and journals, a roller bearing comprising longitudinal antifriction rollers, a revolving cradle uniting said rollers and removable therewith, means for adjusting the parts of said bearing to take up wear and renewable bushings or similar parts to which the wear is confined and which may be renewed when worn out, substantially as described. 11th. In means for the reduction of the friction of axles and journals, the combination of longitudinal antifriction rollers, a revolving cradle provided with end rings uniting said rollers and removable therewith, renewable bushings and means for drawing said end rings toward said other to take up wear, substantially as described. 12th. In means for the reduction of the friction of axles and journals, the combination of longitudinal antifriction rollers, a cradle comprising a pair of end rings and rods that rigidly unite said end rings, adjusting devices and sliding removable bushings or wear parts for said rollers, substantially as described.

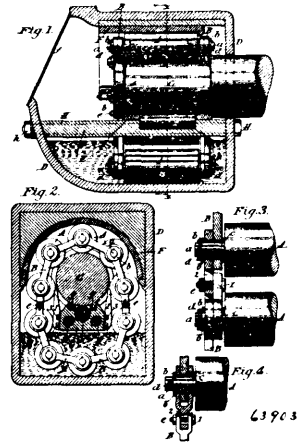
#### No. 63,903. Antifriction Bearing.

(*Coussinet de tourillon sans friction.*)

William John Brewer, London, Middlesex, England, 19th September, 1899; 6 years. (Filed 14th July, 1899.)

*Claim.*—1st. The combination with a rotating axle or journal, a box therefor, having an oil chamber at the bottom and a bearing surface concentric with the periphery of the axle or journal at top, and a series of longitudinal rollers interposed successively between said bearing surface and said periphery in contact with both, of a chain cradle uniting said rollers and revolving therewith without contact with said bearing surface or periphery and comprising parallel chains and means consisting of lap joints between successive rollers for shortening said chains to compensate for wear. 2nd. In a roller bearing, the combination with longitudinal rollers having cylindrical pivots of a chain cradle provided with pivot holes coincident with said pivots, and renewable wear parts surrounding said pivots within said pivot holes and consisting of interchangeable castings of Babbitt metal or the like adapted to be slipped endwise into working position. 3rd. In a roller bearing, the combination with longitudinal rollers having cylindrical pivots of a chain cradle provided with pivot holes coincident with said pivots, renewable wear parts surrounding said pivots within said pivot holes, adapted to be slipped into place endwise and withdrawable outwardly, and means for tightening said wear parts by endwise spring pressure. 4th. In combination with a rotating axle and a car axle box having an internal bearing surface at top, a roller bearing comprising

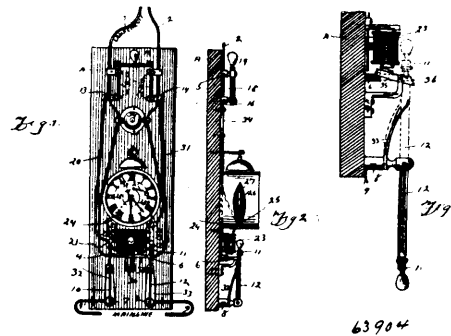
longitudinal rollers co-acting with the periphery of the axle and with said bearing surface and a chain cradle for said rollers, and an



under bearing or keep extending from end to end within the box in contact with the bottom of the axle, and a pair of through bolts detachably fastening and supporting said keep within the box, for the purpose set forth. 5th. In combination with a rotating axle and a car axle box having an internal bearing surface at top, a roller bearing within said box comprising longitudinal rollers co-acting with the periphery of the axle and with said bearing surface, and a chain cradle for said rollers, an under bearing or keep forming the contact surface of said keep, and means for detachably supporting said keep within the box, substantially as hereinbefore specified, for the purpose set forth.

#### No. 63,904. Time Cut-Out for Electric Lamps.

(*Detente horaire pour lampes electriques.*)



James H. Boardman, Port Huron, Michigan, U.S.A., 19th September, 1899; 6 years. (Filed 28th June, 1899.)

*Claim.*—1st. The combination with the clock circuit, the break wheel 26 and the contact spring 27 and the electromagnet 23, of the armature 35, the main line circuit and the main line switch 11 having its free end travelling in the path of said armature, and the leaf springs 32, 33, operatively connected to said switch, substantially as shown and described. 2nd. In an automatic time cut-out for incandescent electric lamp circuits, the main line circuit, the lamp circuit, and the spring actuated switch 11, arranged intermediate said circuits, in combination with the clock, the clock switch 19, and the magnet 23, formed in the clock circuit, and in series with said main line circuit, and the pivoted armature 35, adapted to lock said spring actuated main line switch in a closed position, substantially as and for the purpose set forth.

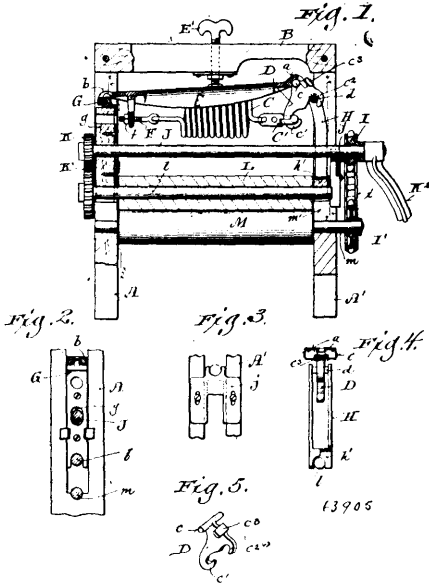
#### No. 63,905. Clothes Wringer. (*Essoreuse.*)

Gustavus A. Paddock, Beaver Dam, Wisconsin, U.S.A., 19th September, 1899; 6 years. (Filed 13th April, 1899.)

*Claim.*—1st. A clothes wringer comprising vertically movable frames provided with bearings for the upper roll shaft, a bell crank lever fulcrumed on one of the bearing frames at the upper end of the same, a bar having rocking connection with the upper inner corner of the bell crank lever and pivotal connection with the bearing frame further from the one aforesaid, a link in pivotal connection with the lower end of said lever, a spring in adjustable tension connection with the link and a depending branch of the bar, and a pressure regulating device in connection with the top bar of the wringer



frame exertive against the former bar. 2nd. A clothes wringer comprising vertically movable frames provided with bearings for



the upper roll shaft, a bell crank lever fulcrumed on one of the bearing frames at the upper end of the same and provided with upper lateral trunnions and lugs, a bar having hook branches at rest on the trunnions and under the lugs of the lever, and pivotal connection with the bearing frame furthest from the lever fulcrum, a spring one end thereof in pivotal link connection with the lever end of said lever, and its other end in adjustable tension connection with a depending branch of the bar, and a pressure regulating device in connection with the top bar of the wringer frame exertive against the former bar. 3rd. A clothes wringer comprising a pressure bar approximately parallel to the wringer, rolls one of which is mounted in stationary bearings and the other in vertically movable bearings, a lever in pivotal connection with the bar, a spring having adjustable tension connection with the bar and lever, and a pressure regulating device in connection with a cross bar of the wringer frame. 4th. A clothes wringer comprising a drive shaft having link belt and sprocket gear connection with one of the roll shaft and spur gear connection with the other roll shaft, one end of the drive shaft and a roll shaft, in gear therewith being mounted in stationary bearings, the bearings for the other end of said drive shaft and the other roll shaft being vertically movable, a pressure bar approximately parallel to said rolls, a lever in pivotal connection with the bar, a spring having adjustable tension connection with the bar and lever, and a pressure regulating device in connection with a cross bar of the wringer frame.

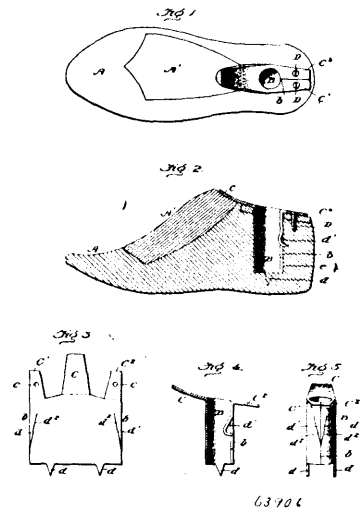
**No. 63,906. Thimble for Shoe Lasts.**

(Dé pour formes de chaussures.)

John Emmerson Scott, Philadelphia, Pennsylvania, U.S.A., 19th September, 1899; 6 years. (Filed 7th April, 1899.)

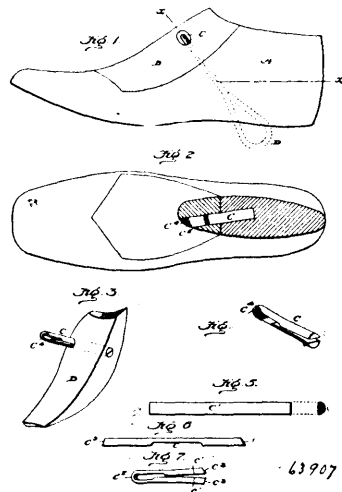
Claim.—1st. A thimble for the spindle socket of a shoe last, having integral spurs or prongs adapted to engage respectively with the bottom of a socket and side walls of said socket at points above the lower end of the thimble, substantially as set forth. 2nd. A thimble or lining for the spindle socket of a shoe last, formed from a single metallic blank having at its lower end and at an intermediate point in its length spurs or prongs for engaging with the bottom and side walls of such a socket, and also having at its upper end means for securing it to the body of the last beyond said socket, substantially as set forth. 3rd. A thimble or lining for the spindle socket, of a shoe last having a retaining spur or prong struck up or cut from the thimble body and normally having a portion extending within the bore or passage in the thimble, and its point flush with or inside of the outer face or surface of the thimble, and adapted to be forced beyond the thimble into engagement with the wall of the socket, substantially as set forth. 4th. The herein described thimble for the spindle socket of a shoe last formed from a sheet metal blank having a spur *d* at one end, and a spur *d'* cut from the body of the blank at an intermediate point in its length, the latter being bent to have its body extend at an angle to its point and out of line with the body of the plate, whereby, when the blank is rolled up to form the thimble, the spur *d* will project beyond the lower end thereof, and the body of the spur *d'* will extend into the bore in the thimble, substantially as set forth. 5th. A thimble for the spindle socket of a shoe last, having an integral spur or prong adapted to engage with the side

walls of said socket at a point above the lower end of the thimble, substantially as set forth. 6th. A thimble or lining for the spindle



socket of a shoe last having at intermediate points in its length and at diametrically opposite points, integral spurs or prongs, the stems of which are adapted to extend into the bore of the thimble when it is being inserted in a socket to hold the points of said spurs inside of the outer face or surface of the thimble, substantially as set forth. 7th. A thimble or lining for the spindle socket of a shoe last, comprising a tube having at one end longitudinally extending spurs *c c* adapted to engage the bottom of a socket, and having at its other end upset to form an annular flange about the upper end of the thimble to protect the surface of the last surrounding the socket from wear, substantially as set forth. 8th. A thimble or lining for the spindle socket of a last, comprising a section of thin metal tubing which is provided with integral spurs for securing it to a last, and which has two outwardly bent members, which form an annular flange about the upper end of the thimble, substantially as set forth. 9th. A thimble or lining for the spindle socket of a last, comprising a section of light metal tubing having at its upper end a flange adapted to conform accurately to the top surface of a last about the spindle socket, and having in its tubular body portion spurs adapted to engage with the last surrounding the spindle socket, substantially as set forth.

**No. 63,907. Last Block Fastener. (Attache pour formes.)**



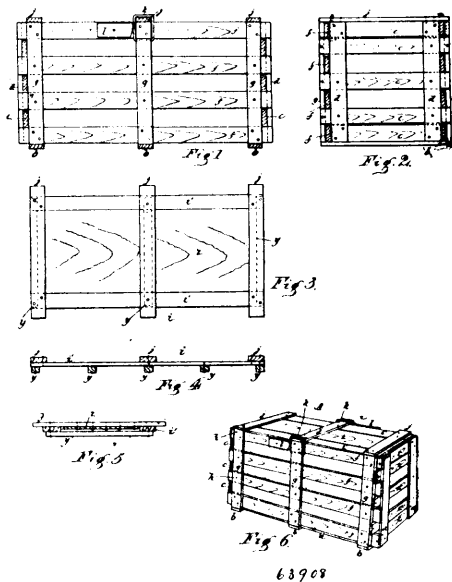
John Emerson Scott, Philadelphia, Pennsylvania, U.S.A., 19th September, 1899; 6 years. (Filed 7th April, 1899.)

Claim.—1st. The herein described fastener for securing a last block to a shoe last consisting of a split pin having two spring arms connected at one end, said arms being reduced in thickness near their connected ends, and adapted to have their free ends passed through a single passage in the last block and into an aligned socket in the last, substantially as and for the purpose set forth. 2nd. The combination with a shoe last, and a detachable last block therefor



having a passage formed therein at one side of the central, longitudinal, line thereof, of a split pin adapted to extend through said passage and into an aligned socket in the last, the outer end of said pin being bevelled to lie flush with the adjacent surface of the last block, when in working position, and the arms of said pin being reduced in thickness near such outer end to provide for the engagement therewith of means for withdrawing the pin from the socket in the last, substantially as set forth. 3rd. The combination with a last and a last block therefor, of a pin adapted to connect the last block to the last and provided with a laterally movable spring actuated lug or finger which automatically engages with the last block when the pin is disengaged from the last, substantially as and for the purpose set forth. 4th. The combination with a last and a last block therefor, of a pin consisting of two spring arms adapted to extend through a passage in the last block and into a socket in the last, one of said arms being adapted to move laterally and engage with the inner surface of the last block when the pin is removed from the socket in the last, substantially as set forth. 5th. The herein described pin for detachably connecting a last block to its last consisting of two diverging spring arms, one of which is provided at one end for the purpose set forth. 6th. The herein described pin for securing a last block to its seat in a last consisting of two spring arms connected at one end by a head that extends laterally beyond the body of the pin and one of said arms having at its free end a laterally extending lug or finger, substantially as set forth. 7th. The herein described pin for connecting a last block to its last, consisting of a single piece of metal bent to form two spring arms connected by a head at one end, one of said arms being reduced in thickness at points intermediate of its length whereby a laterally projecting lug or finger is provided at its free end, substantially as set forth for the purpose specified.

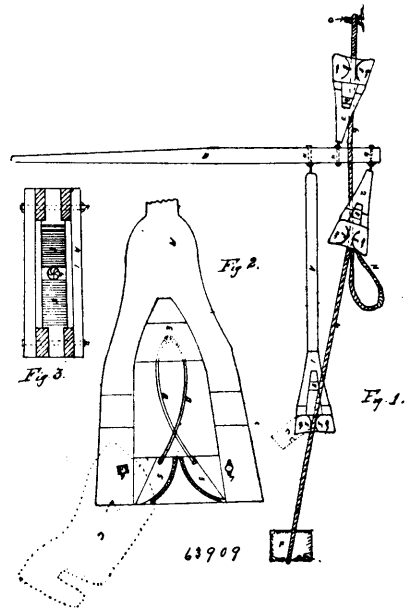
**No. 63,908. Fruit Crate. (Boite à fruits.)**



William Cleaver, Oxford, Michigan, U.S.A., and Ellis Hughes Cleaver, Burlington, Ontario, Canada, 19th September, 1899; 6 years. (Filed 4th April, 1899.)

*Claim.*—1st. A fruit crate or package, constructed of strips of material such as laths with air spaces between the strips, having the sides, top, bottom and ends formed in sections of horizontal and vertical pieces, the ends of the sides, and side ends of the end sections made to interlock and secured together by nails, wires or their equivalent, all constructed substantially as and for the purpose specified. 2nd. A fruit crate or package, having its cover formed with two side horizontal strips, a series of strips secured thereto at right angles, and made to overlap the vertical pieces of the sides, a filling of thinner material as veneer, &c., secured between the sides of the cover, leaving a ventilating space underneath the filling, a series of cleats secured to the bottom sides of the cover at right angles thereto, all constructed substantially as and for the purpose specified. 3rd. In a fruit crate or package, the combination of the six sections, the sides and ends being interlaced at their corners, a cover formed with two thickness of material to leave a ventilating opening in the ends, and cleats attached to the underside of the cover to press upon and hold the fruit baskets, a wire lock pivoted to the centre strip of the sides to clasp and hold the central cross strip of the cover, and lock buttons or their equivalent, to hold the wire lock on the cover to secure it to the crate, all constructed substantially as and for the purpose specified.

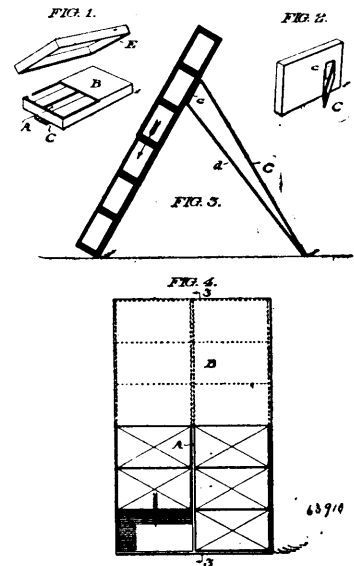
**No. 63,909. Rope Clutch. (Griffe pour cables.)**



Lyman H. Terrill, Lindsay, Ontario, Canada, 19th September, 1899; 6 years. (Filed 25th January, 1899.)

*Claim.*—1st. In a clutch to apply on ropes and the like, the combination with the iron frame A having a strengthening bar E of the corrugated clamps 5, 5, having wire springs D, D, attached thereto, caps C and bolts 7, 7, all arranged and combined substantially as and for the purpose set forth. 2nd. An apparatus for moving heavy weights consisting of three clutches 1, 2 and 3, in combination with the lever B and the rope 6, substantially as and for the purpose set forth.

**No. 63,910. Display Box. (Boite de montre.)**

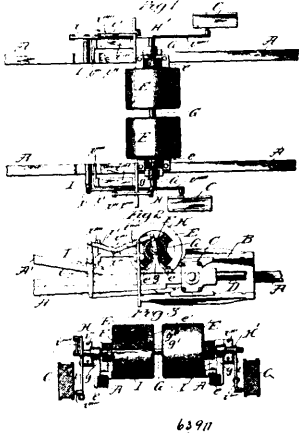


Anthony Miskey Hance, Philadelphia, Pennsylvania, U.S.A., 19th September, 1899; 6 years. (Filed 10th January, 1899.)

*Claim.*—1st. A display box for containing a series of smaller uniform articles, the width and depth of the box being equal to, or a multiple of the similar dimensions of one of the contained articles, the height being equal to a number of times the similar dimension of one of the contained articles, the upper portion of the top of the box being permanently covered with a half-top designed for advertising purposes, which in height is equal to a less number of times the similar dimension of one of the contained articles, than that is represented by the height of the box, and a hinged support at the back of the box, substantially as described. 2nd. A transportation and display box, for containing a series of smaller uniform articles, the

width of the box being a multiple of the similar dimension of one of the contained articles, the depth of the box being equal to or a multiple of the similar dimension of one of the contained articles, the height of the box being equal to a number of times the similar dimension of one of the contained articles, vertical partitions separating each vertical line of the contained articles, the upper portion of the top of the box being permanently covered with a half-top, designed for advertising purposes, which in height is equal to a less number of times the similar dimension of one of the contained articles than that which is represented by the height of the box, and a hinged support at the back of the box, substantially as described.

**No. 63,911. Means of Generating Electricity from the Machinery of a Locomotive.** (*Moyen de generer l'electricité par le mecanisme d'une locomotive.*)



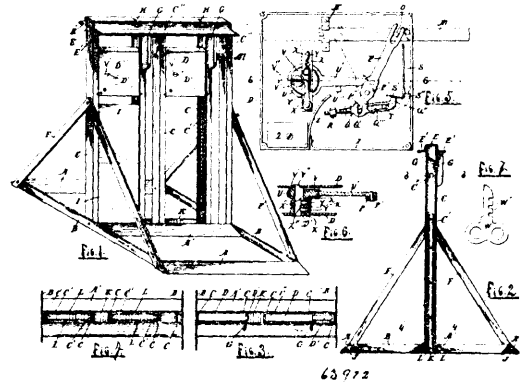
Harry F. Roach, St. Louis, Missouri, U.S.A., 19th September, 1899; 6 years. (Filed 5th January, 1899.)

*Claim.*—1st. In a means for generating electricity from the machinery of a locomotive, the combination of a dynamo or dynamos mounted upon the frame of a locomotive, cranks or eccentrics mounted on the armature shaft of said dynamo or dynamos, said cranks or eccentrics being arranged on said armature shaft at an angle with relation to each other, and means connected to the cross head of said locomotive and said cranks or eccentrics for converting the reciprocatory motion of said armature shaft, substantially as described. 2nd. In a means for generating electricity from the machinery of a dynamo or dynamos, mounted upon the frame of a locomotive, cranks or eccentrics, mounted on the armature shaft of said dynamo or dynamos, said cranks or eccentrics being arranged on said armature shaft at an angle with relation to each other, a guide mounted on said frame, a cross-head mounted in said guide, a support mounted upon said frame, a lever pivoted to said support, a link for connecting one end of said lever to said cross-head, and means connecting the other end of said lever to said cranks or eccentrics secured to said armature shaft, whereby the reciprocatory motion of the cross-head is converted into rotary motion of said armature shaft, substantially as described. 3rd. The combination with the main frame of a locomotive, of a dynamo mounted thereon, cranks or eccentrics secured to the armature shaft of said dynamo, a guide mounted on said main frame, a cross-head mounted in said guide, a support secured to said main frame, a lever pivoted to said support, means for connecting one end of said lever to said cross-head, a second guide mounted on said main frame, a second cross-head mounted in said second guide, a link connecting the other end of said lever with said second cross-head, and a connecting rod secured to said second cross-head and said cranks or eccentrics secured to said armature shaft, whereby the reciprocatory motion of said first mentioned cross head is converted into rotary motion of said armature shaft, substantially as described. 4th. In combination with a locomotive, of a dynamo or dynamos supported upon the framing thereof, means for revolving the armature of said dynamo or dynamos by the moving parts of the locomotive, a switch, and means co-operating with the reverse lever, of the locomotive, for automatically operating said switch, whereby, when the reverse lever is moved in one direction or the other, which movement of the armature of said dynamo or dynamos, said switch will be actuated in the proper direction to cause a current of electricity to flow from said dynamo or dynamos always in one direction, substantially as described. 5th. The combination with the reverse lever of a locomotive, of its connecting parts to, and including the link shaft, of a switch operated thereby, and means for causing said switch to effect a contact in one or the other of its two positions, depending upon the direction in which said reverse lever is thrown, regardless of the amount of throw given said reverse lever, substantially as described. 6th. In combination with the reverse lever of a locomotive, or its connecting parts to, and including the link shaft, of a valve operated thereby, a casing for said valve, ports in said casing,

a cylinder secured to said casing, ports arranged in said cylinder, and communicating with the first mentioned ports, a piston arranged in said cylinder, a piston rod connected to said piston, a switch, and a connecting rod connecting said switch and said piston rod, substantially as specified. 7th. In combination with the reverse lever of a locomotive or its connecting parts to, and including the link shaft, of a valve operated thereby, a casing for said valve, said valve being so proportioned and arranged that the initial or final stroke of said reverse lever in either direction, will permit said valve to open a proper port to pressure fluid, and, at the same time, effect the proper exhaust of said last mentioned port, said open port for pressure fluid and said exhaust port being permitted to so remain regardless as to whether the reverse lever has moved to its maximum position or to its minimum position, a cylinder and piston arranged in said casing, a switch, and means for connecting said switch and said piston, substantially as and for the purpose set forth. 8th. The herein described switch, the same consisting of two or more parallel inverted V-shaped plates, separated and insulated from each other by suitable distance pieces, contacts arranged on said plates, a tongue pivoted to, and insulated from, the apex of said plates, contacts arranged on said tongue, and wires connected to said plates, substantially as and for the purposes specified. 9th. In a means for generating electricity from the machinery of a locomotive, the combination of a dynamo or dynamos suitably mounted upon the locomotive, of cranks or eccentrics mounted upon the armature shaft of said dynamo or dynamos, said cranks or eccentrics being arranged on said armature shaft at an angle with relation to each other, means connected to the moving parts of the locomotive and said cranks or eccentrics, for imparting rotary motion to said armature shaft, a fluid thrown switch in the circuit, and means connected to, and controlled by the reverse lever of the locomotive, for actuating said fluid thrown switch whenever the direction of rotation of the armature is changed, substantially as described.

**No. 63,912. Coin-Controlled Bicycle Stand.**

(*Porte bicyclet actionné par une pièce de monnaie.*)

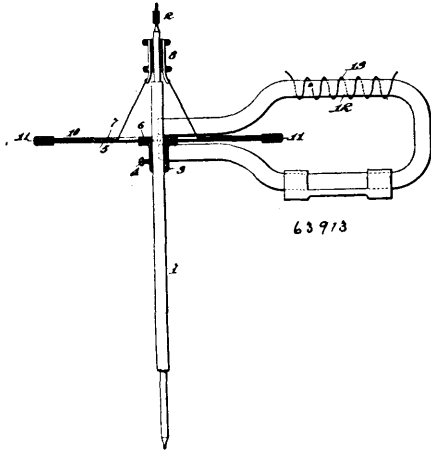


Dow Bushnell Austin, Grand Rapids, Michigan, U.S.A., 19th September, 1899; 6 years. (Filed 15th October, 1898.)

*Claim.*—1st. In a coin-controlled lock for bicycle stands, a locking mechanism having a limited movement, a bolt having a much greater movement, a pivoted lever connected to said bolt at a distance from its pivot and connected with a locking mechanism near its pivot, and coin released mechanism for holding said lever, substantially as described. 2nd. In a coin controlled lock for bicycle stands, a locking mechanism having a limited movement, a bolt having a much greater movement, a lever pivoted intermediately and engaging said bolt near one end and also connected near its pivot to the locking mechanism, a latch pivoted to the other end of said lever, a stop engaged by said latch and coin chute above said stop, substantially as described. 3rd. In a coin-controlled lock for bicycle stands, a casing, a longitudinally movable bolt in the same, a lever engaging said bolt, means for locking said lever and releasing the same by a coin and an eccentric to operate said lever, substantially as described. 4th. In a coin controlled lock for bicycle stands, a bolt having an extended longitudinal movement, a lever having a pivot and engaging said bolt near one end and connected to said lock near said pivot and operated by said lock, a latch connected to said lever to hold the same, and a coin chute, substantially as described. 5th. In a coin-controlled lock for bicycle stands, a bolt to engage and hold the wheel, a pivoted lever engaging and moving said bolt, a latch connected to said lever, a coin chute adjacent to said latch, a key-operated rotative plug, an eccentric mounted on said plug, a strap on said eccentric, a rod connecting said strap and lever, substantially as described. 6th. In a coin-controlled lock for bicycle stands, in combination with a longitudinally movable bolt to secure the bicycle and a pivoted lever to operate said bolt, and a lock connected to said lever to operate the same, a coin chute having a stop near its lower end, a latch having a longitudinal slot and a transverse slot and engaging said stop, a coin in the case engaging the longitudinal

slot in the latch, and a pin on said lever engaging the transverse slot in the same, substantially as described. 7th. In a coin-controlled lock for bicycle stands, the combination of a longitudinally movable bolt having a pin, a lever having a slotted upper and engaging said pin, an intermediate pivot and a pin at its lower end, a coin chute and a stop, a latch having a longitudinal slot engaging a fixed pin, and a transverse slot engaging the pin in the lever, and an adjustable weight, and an upturned end engaging the stop, a key operated rotative plug, wards and tumblers engaging the same, an eccentric on said plug, a strap on said eccentric, and a rod connecting said strap and lever, substantially as described. 8th. In a coin-controlled lock for bicycle stands, a case having journal openings and a lateral opening, a rotative plug journaled in said openings and having a key slot, wards having notches, said lateral openings, slot and notches being in line when the device is locked, and out of line when the same is unlocked, and coin-released mechanism to hold the device in unlocked position, substantially as described.

**No. 63,913. Electric Meter. (Electrométric.)**

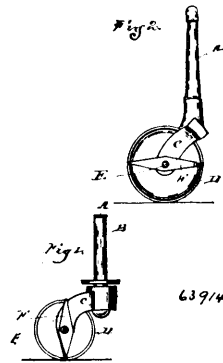


Roger Sherman White, New York City, New York, U.S.A., 19th September, 1899; 6 years. (Filed 7th October, 1898.)

*Claim.*—1st. In an improved motor meter, the combination of an armature influenced by the current to be measured, a retarding device for imposing a load upon the armature, a permanent field magnet with respect to which the armature rotates, and a magnetizing coil on such field magnet, substantially as set forth. 2nd. In an improved motor meter, the combination of an armature influenced by the current to be measured, a retarding ring for imposing a load upon the armature, a permanent field magnet with respect to which the armature rotates, and a magnetizing coil on such field magnet, substantially as set forth. 3rd. In an improved motor meter, the combination of an armature influenced by the current to be measured, a retarding ring for imposing a load upon the armature, a permanent field magnet with respect to which the armature rotates, said retarding ring also operating in the field of such permanent field magnet, substantially as set forth. 4th. In a motor meter, the combination with an armature influenced by the current to be measured, of a field magnet with respect to which the armature rotates, a retarding device carried by the motor armature and influenced by the field of the permanent field magnet, and a separate retarding magnet arranged at the neutral point on said armature and also influencing the retarding device, substantially as set forth. 5th. In a motor meter, the combination with an armature influenced by the current to be measured, of a field magnet with respect to which the armature rotates, a retarding ring carried by the motor armature and influenced by the field of the permanent field magnet, and a separate retarding magnet arranged at the neutral point on said armature and also influencing the retarding ring, substantially as set forth. 6th. In a motor meter, the combination with an armature comprising a flat disc of non-metallic material, of armature coils carried by said disc, a field magnet with respect to which the armature rotates, and a retarding device for retarding the rotation of said armature, substantially as set forth. 7th. In a motor meter, the combination with an armature comprising a flat disc of non-metallic material, of armature coils carried by said disc, a field magnet with respect to which the armature rotates, and a retarding ring influenced by the field of said field magnet for retarding the rotation of said armature, substantially as set forth. 8th. In a motor meter, the combination with an armature comprising a flat disc of non-metallic material, of armature coils carried by said disc, a field magnet with respect to which the armature rotates, and a retarding ring influenced by the field of said field magnet for retarding the rotation of said armature, substantially as set forth. 9th. In a motor meter, the combination with an armature comprising a flat, non-metallic disc, armature coils carried by said disc and a flat, non-magnetic retarding ring carried by the armature, of a field

magnet with respect to which the armature rotates, said field magnet also influencing the retarding ring, substantially as set forth. 10th. In a motor meter, the combination with an armature comprising a flat, non-metallic disc, armature coils carried by said disc, and a flat non-magnetic retarding ring secured to said flat, non-metallic disc above the armature coils, of a field magnet with respect to which the armature rotates, said field magnet also influencing the retarding ring, substantially as set forth. 11th. In a motor meter, the combination with an armature comprising a flat, non-metallic disc, armature coils carried by said disc, and a flat annular, retarding ring made of aluminum, of a field magnet with respect to which the armature rotates, said field magnet also influencing the retarding ring, substantially as set forth. 12th. In a motor meter, the combination of a shaft of magnetic metal rotating in a horizontal plane, a bearing for each end of said shaft, a horse shoe magnet the poles of which carry said bearings and attract the ends of the rotating shaft to relieve the bearings of its weight, and means for adjusting the bearings longitudinally on said magnet so as to increase or decrease the magnetic attraction, substantially as set forth. 13th. In a motor meter, the combination of a shaft of magnetic metal rotating in a horizontal plane, a bearing for each end of said shaft, a horseshoe magnet the poles of which attract but do not engage the ends of the rotating shaft to relieve the bearings of its weight, and means for adjusting the shaft laterally with respect to the magnet so as to balance the shaft, substantially as set forth. 14th. In a motor meter, the combination of a shaft of magnetic metal rotating in a horizontal plane, a bearing for each end of said shaft, a horse shoe magnet the poles of which attract but do not engage the ends of the rotating shaft to relieve the bearings of its weight, means for adjusting the shaft laterally with respect to the magnet so as to balance the shaft, and means for adjusting the shaft toward or away from the magnet to vary the effect of the magnetic attraction, substantially as set forth. 15th. In a motor meter, the combination of the shaft I, of magnetic material, the horseshoe magnet 31, the adjustable brackets 29, and bearings for the shaft carried in said brackets, substantially as set forth. 16th. In a motor meter, the combination of the shaft I, of magnet material, the horseshoe magnet 31, the adjustable brackets 29, and adjustable bearings for the shaft carried in said brackets, substantially as set forth.

**No. 63,914. Insulating Caster and Electric Switch. (Roulettes isolantes et commutateurs électriques.)**



The Slayton Electric Caster Co., assignee of Augustus W. Slayton, all of Tecumseh, Michigan, U.S.A., 20th September, 1899; 6 years. (Filed 12th July, 1899.)

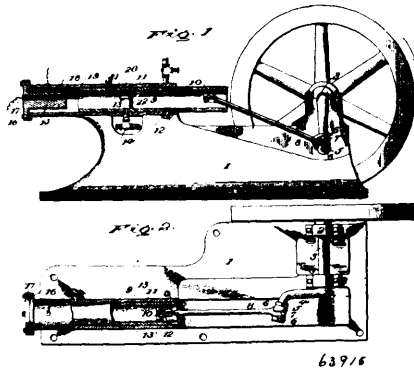
*Claim.*—An insulating caster, the wheel of which is made of glass combined with a metallic contact-arm pivotally secured to the metallic frame or support of the caster and adapted to form an electric connection with the floor.

**No. 63,915. Gas Engine. (Machine à gaz.)**

William Samuel Sharpneck, Everett W. Brooks, and John D. Ross, all of Chicago, Illinois, U.S.A., 20th September, 1899; 6 years. (Filed 20th May, 1899.)

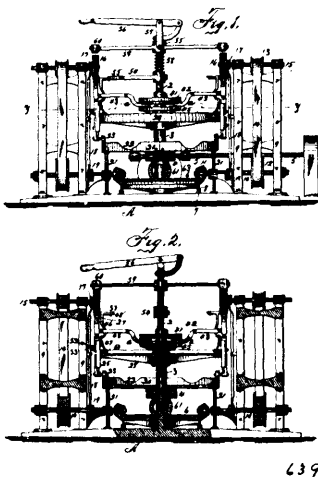
*Claim.*—1st. The combination in an engine, of a cylinder, a piston impelled by the direct action of the motive fluid, a crank having its wrist pin set obliquely to the axis of the shaft, and a connection for transmitting the power from the piston to the crank, substantially as described. 2nd. The combination in an engine, of a cylinder, a piston working therein arranged to be impelled by the direct force of the motive fluid, a shaft, a bearing surface on said shaft set eccentrically and at an angle to the axis thereof, a collar on said bearing surface, and a connection between the collar and the piston transmitting power from the piston to the crank, substantially as and for the purpose specified. 3rd. The combination in an engine, of a hollow piston, arranged to be acted on directly by the impelling fluid and having an inlet port, a cylinder therefor having an inlet port near the end of the stroke of the piston, an exhaust port near the centre of said stroke, a shaft, a crank having its wrist pin set obliquely to the axis of the shaft and a connection for transmitting

the power from the piston to the crank, substantially as and for the purpose specified. 4th. The combination in an engine, of a cylinder



having two exhaust ports substantially in line transversely of the cylinder, a valve arranged to close one when the other is opened, a piston working in said cylinder having an exhaust port registering with one of the ports as it passes in one direction and with the other port on the return stroke, substantially as described. 5th. The combination in an engine, of a cylinder having an inlet port, two exhaust ports, and a valve arranged to close one exhaust port when the other is opened, with a piston travelling in said cylinder having a port registering with all three of the ports in the cylinder, substantially as described. 6th. The combination in an engine, of a cylinder having an inlet port, two exhaust ports substantially in line transversely of the cylinder, and a valve arranged to close one exhaust port when the other is opened, with a piston travelling in said cylinder, and mechanism for partially rotating the piston to cause a port in said piston to register with all the ports in the cylinder, substantially as described. 7th. The combination in a gas engine, of a cylinder having inlet and outlet ports, with a hollow piston having an electrical contact point, and a port connecting with cylinder ports, a filler around which the piston travels, and a second contact point passing through the filler to make contact with the contact point of the piston, substantially as described.

**No. 63,916. Polishing Machine. (Machine à polir.)**



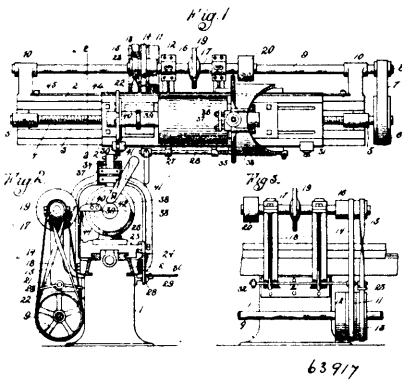
The Oneida Community, assignee of Ferrand Fairchild's Ellis, all of Kenwood, New York, U.S.A., 20th September, 1899; 6 years. (Filed 12th May, 1899.)

*Claim.*—1st. In a polishing machine, the combination with a polisher, of an automatically and longitudinally rocked work-grip engaging endwise with said polisher, to permit it to automatically follow the irregular lengthwise contour of an article held in the grip. 2nd. In a polishing machine, the combination with a polisher, mounted in stationary bearings, of a moving work-grip rocked automatically and longitudinally by its endwise engagement with said polisher to permit it to automatically follow the irregular lengthwise contour of an article held in the grip. 3rd. In a polishing machine, the combination with a polisher, of a work-grip mounted upon a rocking support and rocked automatically and longitudinally during their engagement, whereby the polisher will automatically follow the contour of an article held in the grip. 4th. In a polishing machine, the combination with a polisher, of a work holder oscillated laterally and reciprocated vertically, and a work-grip upon said holder, rocked automatically and longitudinally

during and by the engagement of the work with said polisher, whereby the polisher is enabled to follow the irregular shape of an article held in the grip. 5th. In a polishing machine, the combination with a polisher mounted in a fixed plane, of a work-grip normally in a coincident plane, and means to rock, oscillate or reciprocate said grip to vary the plane of its presentation to said polisher. 6th. In a polishing machine, the combination with a work-wheel, and a plurality of work-holders mounted to rock upon supports erected upon its periphery, and means to drive it, of a plurality of revolving polishers upon shafts exterior but radial to said wheel, whereby the movement of said wheel brings said holders successively under said polishers. 7th. In a polishing machine, the combination with a rotatable work-wheel, and a plurality of rocking work-holders mounted upon its periphery, of a plurality of revolving polishers projecting into the path of said holders and with which they successively engage and whereby said holders are rocked longitudinally during such engagement to enable the polisher to follow irregular shapes. 8th. In a polishing machine, the combination with a rotatable work-wheel, a plurality of oscillating work-holders, and means to oscillate them laterally, of a plurality of polishers projecting into the path of said holders and successively engaging with them in whatever position they may be. 9th. In a polishing machine, the combination with a rotatable work-wheel, a plurality of oscillating work-holders upon its periphery, a plurality of pitman connected to said holders and means to reciprocate them, of a plurality of polishers projecting into the path of said holders and successively engaging with them in whatever position they may be. 10th. In a polishing machine, the combination with a rotatable work wheel, of a plurality of rocking, oscillating and reciprocating work-holders upon its periphery, of a plurality of polishers in the path of said holders and with which they engage successively in whatever position said holders may be. 11th. In a polishing machine, the combination with a revolving table and a work-holder thereon, of a reciprocating polisher in the path of said holder and with which it engages in whatever position said polisher may be. 12th. In a polishing machine, the combination with a revolving table and a plurality of work-holders thereon, of a plurality of separately reciprocated polishers in the path of said holders and with which they successively engage in whatever position said respective polishers may be. 13th. In a polishing machine, the combination with a rocking and moving work-holder, of a reciprocating polisher with which said holder engages in whatever position said polisher may be. 14th. In a polishing machine, the combination with a revolving table, and a plurality of rocking work-holders thereon, of a plurality of reciprocating polishers engaging with each other in whatever position they respectively are. 15th. In a polishing machine, the combination of a rocking, oscillating, vertically yielding and moving work-holder, and a reciprocating polisher engaging with each other in whatever position they may respectively be. 16th. In a polishing machine, the combination of a revolving work table, and a plurality of separate rocking work-holders thereon, of a plurality of separate and independently reciprocated polishers severally engaging with the respective holders in whatever position said holders and polishers may respectively be. 17th. In a polishing machine, the combination of a moving work-holder, a cam engaging therewith to vertically reciprocate it, and a reciprocating polisher engaging with each other in whatever position they may respectively be. 18th. In a polishing machine, the combination of a rocking and moving work-holder, a cam engaging therewith to vertically reciprocate it, and a polisher with which said holder engages. 19th. In a polishing machine, the combination of a rocking and moving work-holder, a cam engaging therewith to vertically reciprocate it, and a reciprocating polisher engaging with each other in whatever position they may respectively be. 20th. In a polishing machine, the combination of a revolving work-table, a rocking and oscillating work-holder thereon, a pitman connected to said holder, and a cam reciprocating said pitman, with a reciprocating polisher engaging with said work-holder in whatever position each may be. 21st. In a polishing machine, the combination of a revolving work-table, ways thereon, and a work-holder mounted therein, of a cam engaging with the lower end of said holder to reciprocate it in said ways. 22nd. In a polishing machine, the combination with a work-holder consisting of sections detachably connected together and held apart by such connection, of a cam engaging with the lower section to reciprocate the holder whether the sections are separated by said connection or not. 23rd. In a polishing machine, the combination with a work-holder consisting of three sections, a central one, an upper one hinged thereto, and a lower one connected thereto to slide thereon, and held apart therefrom by a removable connection, of a cam engaging with said upper section to oscillate it, and a second cam engaging with said lower section to reciprocate the entire holder, whatever relation the parts may bear to each other. 24th. In a polishing machine, the combination of a polisher, in a stationary plane, of a sectional work-holder having its upper end normally in a position to engage with said polisher and means to disconnect said sections to permit the automatic shortening of said holder to bring its upper end into non-engaging position relative to said polisher. 25th. In a polishing machine, the combination with a polisher, of a work-holder automatically rocking longitudinally and automatically yielding vertically through its impact with said polisher. 26th. In a polishing machine, the combination with a polisher and a work-table, of a work holder mounted therein,

automatically operated jaws thereon, and means whereby when said jaws are empty said holder is automatically tilted out of the plane of said polisher. 27th. In a polishing machine, the combination with a polisher, work-table and ways thereon, of a work-holder consisting of an upper and lower section hinged together, the lower section being mounted in said ways, automatically operated jaws upon the upper section and means whereby when said jaws are empty said upper section is automatically tilted to throw said jaws out of the plane of said polisher. 28th. In a polishing machine, the combination with a work table and a work-holder thereon, of automatically opened and closed jaws upon said holder. 29th. In a polishing machine, the combination with a polisher, a work-table and a work-holder mounted thereon, of a pair of automatically operated work-holding jaws upon said holder, and means to automatically shift said jaws when empty out of the plane of said polisher. 30th. In a polishing machine, the combination with a polisher, a work-table and a rocking work-holder mounted thereon, of a pair of automatically operated work-holding jaws upon said holder, and means to automatically remove said jaws when empty, from the plane of the polisher, and to restore them to it when holding work to be polished. 31st. In a polishing machine, the combination with a polisher, of work-holding jaws upon a rocking support, normally in the plane of said polisher, and means whereby they are shifted out of said plane as soon as the work is removed from them. 32nd. In a polishing machine, the combination with a polisher, of work-holding jaws upon a rocking work-holder mounted upon a rocking support, and means to automatically remove them from the plane of said polisher when empty, and to return them to it when filled. 33rd. In a polishing machine, the combination with a reciprocatory polisher, of automatically opened work-holding jaws mounted upon a rocking support, and means to automatically shift them into or out of the plane of said polisher. 34th. In a polishing machine, the combination with a work-table, a rocking work-holder and work-holding jaws thereon, of an arm automatically engaging with one of said jaws to open it for the insertion or removal of work. 35th. In a polishing machine, the combination with a work-table, a work-holder and work-holding jaws thereon, of a polisher, and an arm automatically engaging with one of said jaws to open it for the insertion or removal of work. 36th. In a polishing machine, the combination with a revolving work-table, multiple work-holders mounted thereon, work-gripping jaws on said holders, and multiple polishers with which said jaws successively engage, of a stationary arm successively engaged by the movable member of said jaws and whereby each jaw is opened for the insertion or removal of work. 37th. In a polishing machine, the combination with a revolving work-table, and a series of work-holders mounted thereon, of a series of polishers in the path of and successively engaged by the work-holders, and a series of vertically reciprocated receivers for polishing material from which said polishers are supplied. 38th. In a polishing machine, the combination with a revolving work-table, and a series of work-holders mounted thereon, of a series of polishers in the path of and successively engaged by said work-holders, a series of arms mounted, radiating from, and reciprocating upon the stationary pivot of said table, a receiver upon each arm holding the polishing material, and means to bring each receiver into contact with a polisher to supply it with the polishing medium.

**No. 63,917. Grinding Machine. (Machine à aiguiser.)**

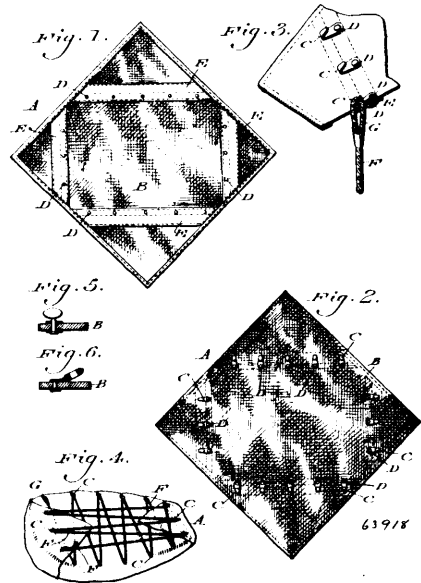


Charles A. Withey, assignee of Fred W. Wright, both of Reed City, Michigan, U.S.A., 20th September, 1899; 6 years. (Filed 1st April, 1899.)

*Claim.*—1st. In a corrugating machine, the combination of a carriage and its actuating shaft, a stationary tool head, a work shaft, a cam lever pivoted to said face plate and adapted to fix said face plate with relation to said work shaft, a track bar adapted to be shifted from the horizontal to an inclined position, said face plate having an arm or projection adapted to travel or rest on said track bar, substantially as set forth. 3rd. In a corrugating machine, the combination of a carriage and its actuating shaft, a stationary tool head, a work shaft, a cam lever pivoted to said face plate and adapted to engage said work shaft, a track bar having one end pivoted and its other end adjustable, and an arm or projection on said face plate, adapted to engage said track bar, substantially as set forth. 4th. In a roll corrugating machine, the combination with an elevated cutter, and a work carriage arranged to travel beneath said cutter, of a track bar inclined to the line of feed of said carriage and the work thereon, and work holding devices mounted on said carriage, and including a rocking disc having a tappet or finger arranged to ride upon the track bar and means for clamping said disc fast with the work, whereby the track bar and the tappet co-act to turn the disc and the work continuously in one direction as the work and carriage travel beneath the cutter and present the work thereto for cutting a continuous spiral in the work, substantially as set forth.

of a carriage and its actuating shaft, a stationary tool head, a work shaft, a cam lever pivoted to said face plate and adapted to fix said face plate with relation to said work shaft, a track bar adapted to be shifted from the horizontal to an inclined position, said face plate having an arm or projection adapted to travel or rest on said track bar, substantially as set forth. 3rd. In a corrugating machine, the combination of a carriage and its actuating shaft, a stationary tool head, a work shaft, a cam lever pivoted to said face plate and adapted to engage said work shaft, a track bar having one end pivoted and its other end adjustable, and an arm or projection on said face plate, adapted to engage said track bar, substantially as set forth. 4th. In a roll corrugating machine, the combination with an elevated cutter, and a work carriage arranged to travel beneath said cutter, of a track bar inclined to the line of feed of said carriage and the work thereon, and work holding devices mounted on said carriage, and including a rocking disc having a tappet or finger arranged to ride upon the track bar and means for clamping said disc fast with the work, whereby the track bar and the tappet co-act to turn the disc and the work continuously in one direction as the work and carriage travel beneath the cutter and present the work thereto for cutting a continuous spiral in the work, substantially as set forth.

**No. 63,918. Wrapper for Hams. (Enveloppe de jambon.)**



Adam Lepper and Frederick William Starke, assignees of William Evan Thomas Merrell, all of Philadelphia, Pennsylvania, U.S.A., 20th September, 1899; 6 years. (Filed 28th April, 1899.)

*Claim.*—1st. A wrapper of the character named consisting of a mat of fabric or other suitable material and means thereon for the engagement of a device which is adapted to be passed over said mat when folded on the article to be wrapped and tightened, thereby closely enveloping said article and preventing uncovering of the same. 2nd. A wrapper of the character named consisting of a mat of fabric and means on the back thereof within the ends thereof for engagement of a tightening and closing device, the portions of the mat outside of said means being free to form laps, said means being in series at an angle to each other and each at an angle to the sides of the mat. 3rd. A wrapper of the character named formed of a mat and securing devices on the back thereof between the corners and centre thereof in series at an angle to each other and to the sides of the mat. 4th. A wrapper of the character named formed of a mat, lacing devices on the back thereof between the free corners of the mat and the centre thereof, and a cord with a loop adapted to be passed from one lacing device to the other over the folded-in corner.

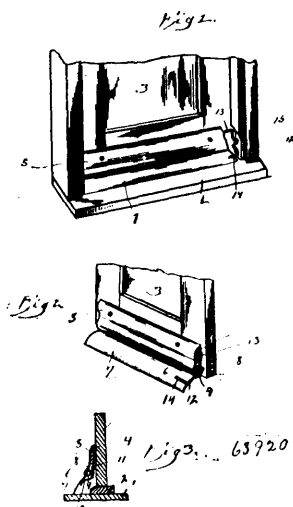
**No. 63,919. Method of Obtaining Thorium Oxide. (Méthode d'obtenir de l'oxyde de thorium.)**

Dr. Ludwig Preussner and Philip Jtzig, both of Charlottenburg, and Gustaf Oppenheimer, Berlin, assignees of Dr. Wilhelm Buddens, Berlin, all of the German Empire, 20th September, 1899; 6 years. (Filed 19th August, 1897.)

*Claim.*—1st. In the art of concentrating raw materials containing thorium, the process which consists in crushing raw materials containing the phosphates of thorium and cerium bases, together with ferrous titanate and zircon into coarse granular form and then introducing them into molten alkali hydrate, whereby the phosphoric acid is separated and the ferrous titanate and zircon are unaffected. 2nd. The process, which consists in reducing monazite sand to

coarse granular form and introducing the same into molten alkali hydrate, whereby the phosphoric acid is separated and the thorium and cerium bases are converted into the oxide. 3rd. The process which consists in treating a raw material containing phosphate of thorium, ferrous titanate and zircon with an alkali hydrate, then dissolving the resulting mass in water, and then recovering the phosphoric acid radical from the solution. 4th. The process which consists in treating a raw material containing phosphate of thorium, ferrous titanate and zircon with an alkali hydrate, then dissolving the resulting mass in water, then recovering the phosphoric acid radical from the solid phosphate, then separating the remaining solution from the solid phosphate and then evaporating the said remaining solution. 5th. The process which consists in treating a raw material containing phosphate of thorium, ferrous titanate and zircon with an alkali hydrate, then dissolving the resulting mass in water, then separating the phosphoric acid radical from the solution then separating the remaining solution from the solid phosphate and then evaporating the said remaining solution, and then separating the thorium oxid from the residue by washing. 6th. The process which consists in comminuting monazite sand and immersing the same into molten alkali hydrate, then dissolving the resulting mass in hot water, then crystallizing out the resultant alkali phosphate, then evaporating the mother liquor after removing the crystals, then adding water to the residue and stirring and decanting or otherwise removing the liquor containing the thorium oxid from the heavy sediment of ferrous titanate and zircon. 7th. The process which consists in treating raw materials containing the phosphates of thorium and of cerium bases, together with zircon and ferrous titanate with alkali hydrates, then dissolving the resulting mass in hot water, then recovering the phosphoric acid radical from the solution, then evaporating the remaining solution, then mixing the residue with water and stirring and separating the resultant oxids of thorium and of the cerium bases from the zircon and the ferrous titanate and then treating the mixture containing the oxids of thorium and of the cerium bases with sulfurous acid, whereby the oxids of the cerium bases are dissolved out from the mixture. 8th. The process which consists in treating raw materials containing the phosphates of thorium and of the cerium bases, together with zircon and ferrous titanate, with alkali hydrate then dissolving the resulting mass in hot water, then separating the phosphoric acid radical from the solution, then evaporating the mother liquor, then mixing the residue with water and stirring and separating the resultant oxid of thorium and of the cerium bases from the zircon and the ferrous titanate and then treating the mixture containing the oxids of thorium and of the cerium bases with an acid, whereby the oxids of the cerium bases are dissolved out from the mixture. 9th. The process which consists in comminuting monazite sand then immersing the same into molten alkali hydrate, then dissolving the resulting mass in hot water, then crystallizing out the resultant alkali phosphate, then evaporating the mother liquor after removing the crystals, then adding water to the residue and stirring and decanting or otherwise removing the liquor containing the thorium oxid from the heavy sediment of ferrous titanate and zircon, and then treating the mixture containing the thorium oxid with sulfurous acid, whereby the cerium bases are dissolved out and a product containing only the thorium oxid is obtained.

**No. 63,920. Weather Strip. (Bourrelet de porte)**

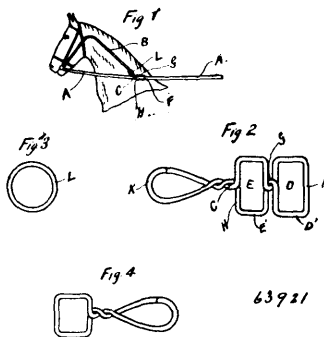


George W. Krebs and Lafayette V. Clark, both of Conway Springs, Kansas, U.S.A.. 22nd September, 1899; 6 years. (Filed 28th July, 1890.)

Claim.—In a weather strip, the combination with a hinged and folding strip and means for raising the latter, of a spring depressor

embodying a foot portion bearing upon the upper side of the folding strip and also providing a lateral projection located intermediate the ends of the depressor and adapted to contact with the door frame for the purposes specified.

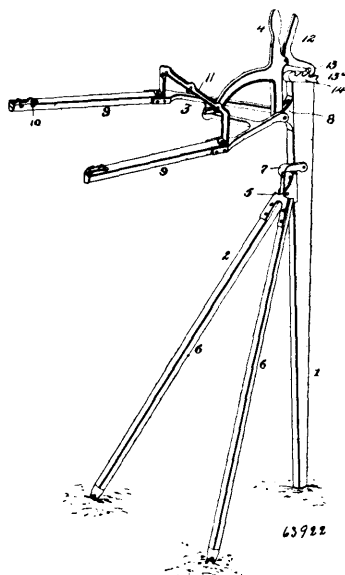
**No. 63,921. Reins Attachment. (Attache de rênes.)**



Benjamin Stanley Ross, King, York, Ontario, Canada, 22nd September, 1899; 6 years. (Filed 18th March, 1899.)

Claim.—1st. The herein described rein attachment, consisting of the two portions D<sup>1</sup> and E<sup>1</sup> adapted to receive line through the spaces D and E, and the loop or snap K, substantially as and for the purpose hereinbefore set forth. 2nd. A rein attachment, comprising two portions D<sup>1</sup> and E<sup>1</sup> having the spaces D and E adapted to receive the line A, a snap K permanently united to the portion E<sup>1</sup>, in combination with a line A and a check rein B, substantially as and for the purpose hereinbefore set forth.

**No. 63,922. Bag Holder. (Accroche-sac.)**

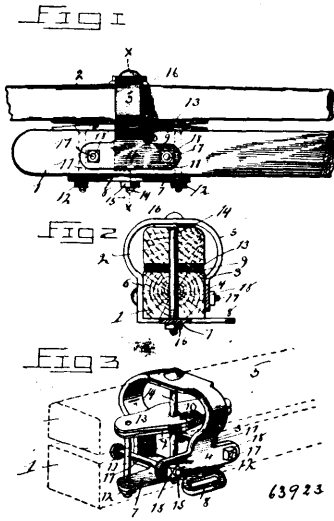


J. Herbert Underwood, Calhoun, New Brunswick, Canada, 22nd September, 1899; 6 years. (Filed 28th March, 1899.)

Claim.—1st. A bag holder, comprising a supporting leg, a supporting frame pivotally connected thereto, said frame being adapted to hold said leg in vertical position, a bag-holding frame pivotally secured to said leg, said frame being adapted to receive and hold the bag during the operation of filling, and a catch secured to said bag-holding frame, said catch being adapted to hold said bag-holding frame in adjusted position on said leg, substantially as described. 2nd. A bag holder, comprising a supporting leg, a supporting frame pivotally connected thereto, said frame being adapted to hold said leg in vertical position, a catch for holding said supporting frame in its operative position, a bag holding frame pivotally secured to said leg, said frame having a series of bag-engaging teeth, and a catch secured to said bag-holding frame and adapted to hold said frame in any of its adjusted positions, substantially as described. 3rd. A bag holder, comprising a supporting leg, a supporting frame pivotally connected to said leg, said frame being adapted to hold said leg in vertical position, a bag-holding frame pivotally secured to said leg, said frame having forwardly extending diverg-

ing arms, said arms having a series of bag-engaging teeth, an arm secured to said frame, and a catch secured to said arm, said catch being adapted to hold said frame in any of its adjusted positions, substantially as described.

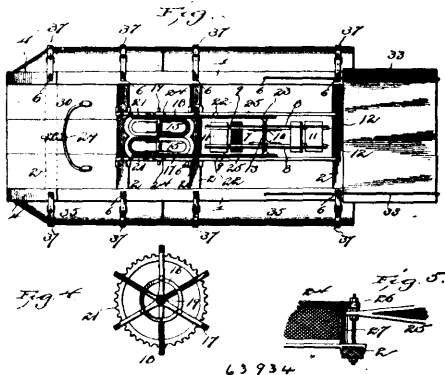
**No. 63,923. Whiffletree. (Palonier.)**



Thomas Scrivener, Harding, South Dakota, U.S.A., 22nd September, 1899; 6 years. (Filed 22nd March, 1899.)

*Claim.*—1st. The combination with double and singletrees, of a guard having an intermediate portion, loosely embracing the singletree, a pivot-bolt passing through the single and doubletrees and bolts passing through one end of the guard and through the doubletree in a horizontal direction on opposite sides of the pivot bolt, the other end of the guard being also connected to the doubletree. 2nd. The combination with single and doubletrees, of a guard having an intermediate portion loosely embracing the singletree, a pivot bolt passing through the single and doubletrees, bolts passing through one end of the guard and through the doubletree on opposite sides of the pivot bolt in one direction, and bolts passing through the other end of the guard on opposite sides of the pivot bolt in a direction at an angle to the first-named bolts. 3rd. The combination with single and doubletrees, of a guard having an intermediate portion loosely embracing the singletree and ends one of which lies against the side of the doubletree and the other against the bottom thereof, a pivot bolt passing through the intermediate portion of the guard and the single and double trees and that end of the guard which lies against the bottom of the doubletree, bolts passing through one end of the guard and the doubletree in one direction and on opposite sides of the pivot bolt, and a second set of bolts passing through the other end of the guard and the doubletree on opposite sides of the pivot bolt and disposed substantially at right angles to the first set of bolts. 4th. The combination with single and doubletrees, of a rigid strap having one end secured to the doubletree at the side thereof, its intermediate portions formed into a guard-loop which loosely embraces the singletree, thence brought down and under the doubletree and there secured to it, and having its remaining end extending laterally beyond the doubletree and fastened into a stay-strap eye.

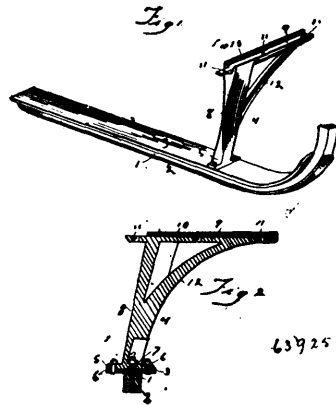
**No. 63,924. Sled Motor. (Traineau-moteur.)**



John G. Sarter, Cando, North Dakota, U.S.A., 22nd September, 1899; 6 years. (Filed 10th March, 1899.)

*Claim.*—1st. In a sled vehicle, a tread wheel consisting of rims or discs, and two series of treadles arranged in different vertical planes and in alternate relation to each other, in combination with a propelling wheel, and gearing operatively connecting the treadle wheel with the propelling wheel, substantially as and for the purposes described. 2nd. In a sled vehicle, a treadle wheel consisting of a shaft, the spaced rims or discs, the two series of radial treadles arranged in different vertical planes and in alternate relation to each other, and suitable sprocket wheels in combination with a propelling wheel provided with sprocket wheels, and sprocket chains fitted to the sprocket wheels of said treadle wheel and the propelling wheel, substantially as described. 3rd. In a sled vehicle comprising a suitable frame having stay rods, a pair of fenders mounted on said frame and carrying bearings, a treadle wheel having its shaft journaled in said bearings, another pair of fenders vertically adjustable on said stay rods of the frame and carrying shaft bearings, a propelling wheel journaled in said bearings of the adjustable fenders, and transmitting gearing between said wheels, substantially as described. 4th. A sled vehicle, comprising a frame having stay rods, a pair of fenders fixed upon said frame, a treadle wheel journaled in bearings on the fixed fenders, a pair of vertically adjustable fenders slidably attached to the fixed fenders and supported by the stay rods, a propelling wheel journaled in said adjustable fenders and movable therewith, and transmitting gearing between said wheels, substantially as described. 5th. A sled vehicle comprising a frame, a treadle wheel mounted thereon and having two sets of treadles, a propelling wheel provided with paddles which lie within suitable projections or spurs thereon, and transmitting gearing between the treadle and propelling wheels, substantially as described. 6th. A sled vehicle comprising a suitable frame equipped with runners, a propelling wheel journaled on said frame, operating mechanism for rotating the propelling wheel, and longitudinal floats attached to said frame, substantially as described. 7th. The combination with a frame, of a sled vehicle and a propelling mechanism carried thereby, of longitudinal floats each provided with a flat side adapted to be applied against said frame, and straps for detachably holding the floats on the side or upon said frame of the vehicle, substantially as and for the purpose described. 8th. A sled vehicle, comprising a suitable frame equipped with runners, a propelling wheel, a load carrying platform supported by said frame on one side of the propelling wheel, a treadle wheel journaled in the frame in advance of the propelling wheel and operatively connected therewith through suitable gearing, and a steering device mounted in the frame in advance of the treadle wheel, substantially as described.

**No. 63,925. Sled. (Traineau.)**



William Smith Evans, Point Rock, New York, U.S.A., 22nd September, 1899; 6 years. (Filed 9th May, 1899.)

*Claim.*—The combination with a sleigh, of the runners thereof, the snow shoes resting on the top of said runners, and the integral knees of metal, comprising each a standard, a flange at the bottom thereof bolted to the snow shoe and also to the runner and to the runner shoe, and a transverse channelled flange at the top of the said standard, and the bracket, all substantially as described.

**No. 63,926. Weeder and Cultivator.**

(Sarcleur et cultivateur.)

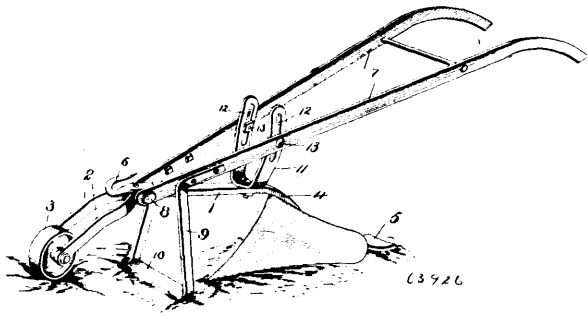
Adelard Grenier, Pincher Creek, North West Territories, Canada, 22nd September, 1899; 6 years. (Filed 2nd March, 1899.)

*Claim.*—1st. A weeder comprising a beam, a roller pivotally mounted at the front end thereof, a surface contacting portion formed at the rear end of said beam, handles pivotally connected to said beam, a weeder removably secured to said handles, and means



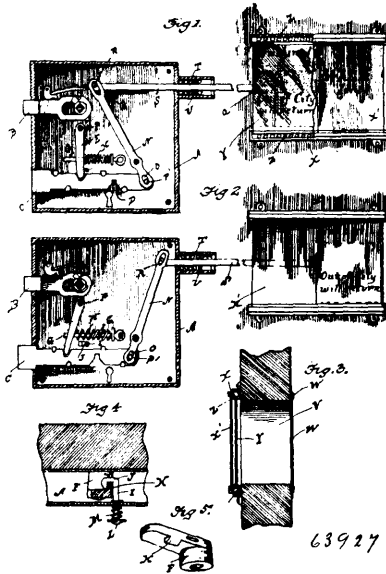
beam, substantially as described. 2nd. A weeder comprising a wheel or roller pivotally mounted at the front end thereof, a surface

face of the shoulder, a snap finger having spaced lugs at its rear end embracing the rib and pivotally connected thereto, and a spring



contacting portion formed at the rear end of said beam, handles pivotally connected to said beam intermediate the wheel or roller and said contacting portion, a weeder removably secured to said handles, and a yoke secured to said beam and adjustably connected to said handles, whereby the position of said weeder relative to said beam may be adjustably varied, substantially as described.

**No. 63,927. Office Door Indicator.**  
(Indicateur de porte de bureau.)



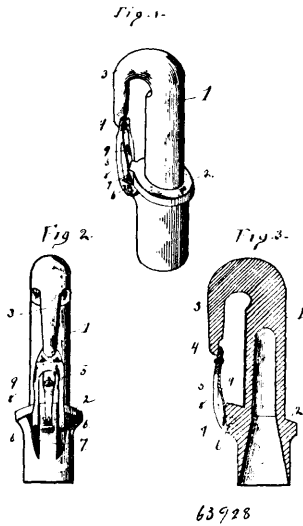
Oscar W. Whaley, Swan, Iowa, U.S.A., 22nd September, 1899; 6 years. (Filed 1st August, 1899.)

*Claim.*—1st. In a lock, the combination of a normally projected locking bolt, means for holding same retracted, and a push rod adapted to release said locking bolt and permit the same to be projected, substantially as set forth. 2nd. In a lock, the combination with the locking bolt, of the operating lever adapted to project the same, a spring for holding said locking bolt projected, and a push rod adapted to engage said operating lever and hold the bolt retracted, and when operated to release said lever and permit the bolt to be projected, substantially as set forth. 3rd. In a door indicator, the combination with the door provided with an opening, of transparent plates arranged on the respective sides of said door, and covering said opening, one of the said plates adapted to bear a suitable inscription, and a transparent slide adapted to move back of said inscription having an opaque portion covering the same, and means for reciprocating said slide, substantially as set forth.

**No. 63,928. Snap Hook for Vehicle Poles.**  
(Crochet à ressort pour timons de voitures.)

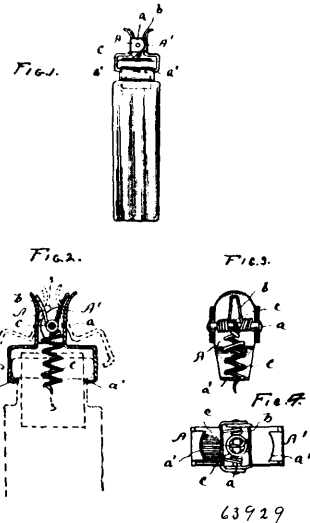
Charles A. Naumann, Cresco, Pennsylvania, U.S.A., 22nd September, 1899; 6 years. (Filed 11th March, 1899.)

*Claim.*—A pole tip comprising a shank having an annular shoulder, a hook in the shank provided with a rearwardly extending bill, a rib extending from said shoulder rearward and provided with a rounded bearing face and also terminating flush with the forward



secured to the free end of said snap finger and acting against the rounded bearing face of the rib, substantially as and for the purpose specified.

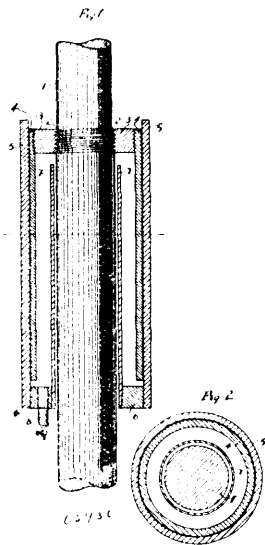
**No. 63,929. Bottle Stopper Retainer and Extractor.**  
(Bouchon de bouteille et extracteur.)



Clinton V. B. Reeder, San Jose, California, U.S.A., 22nd September, 1899; 6 years. (Filed 28th July, 1899.)

*Claim.*—1st. A bottle stopper retainer, comprising spring actuated clasping jaws for engagement with the exterior of the neck of a bottle when the stopper is inserted therein, and an extractor attached to the connecting means of the clasp so as to be positioned between the members thereof and engage with the stopper, substantially as shown. 2nd. A bottle stopper retainer and extractor, comprising a spring clasp having jaws for engagement with neck of the bottle, and a helical or spiral cork extractor in pivotal engagement therewith. 3rd. A bottle stopper retainer and extractor, comprising a spring actuated clasp, a bar holding the members of the clasp in pivotal engagement with each other, and a cork extractor having an eye through which said bar passes, for the purpose set forth. 4th. In a cork holder and extractor, the combination of the spring actuated jaws connected to each other by a cross-bar, a spring mounted on said cross-bar so as to engage with the jaws, a cork extractor or screw mounted on the cross-bar so as to be centrally positioned and retained thereon, substantially as shown and for the purpose set forth.

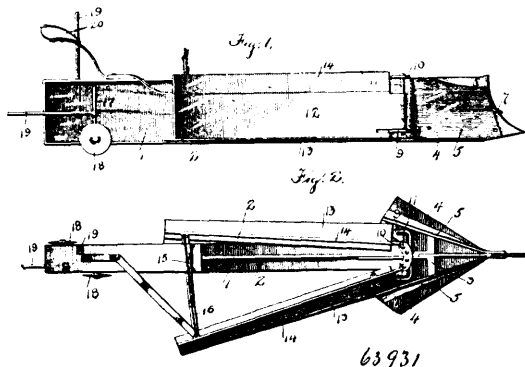
No. 63,930. Oil Retaining Box. (Boîte à retenir l'huile.)



Amos Marshall Rush, Harriston, Ontario, Canada, 22nd September 1899; 6 years. (Filed 4th March, 1899.)

Claim.—1st. In an oil retaining box, the combination of the box with the lower end ring connected together by means of the screw-thread or formed integrally therewith and the hollow cylindrical tube 7 also connected to the ring 6 by means of a screw-thread or formed integrally therewith, said ring having the drip tap 8, all substantially as and for the purpose herein specified. 2nd. In a oil retaining box, a bearing comprising an end ring 3, and a hollow cylindrical tube 4 screwed to said ring or formed integrally therewith, said ring being screwed to the shaft, all substantially as described.

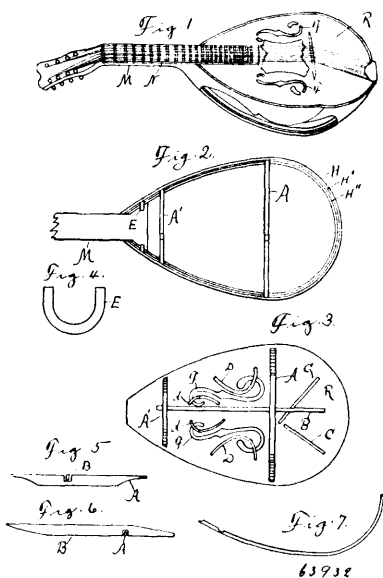
No. 63,931. Ditching Plough. (Charrue à fossoyer.)



Daniel Sullivan, Dominion City, Manitoba, Canada, 22nd September, 1899; 6 years. (Filed 20th March, 1899.)

Claim.—1st. A drain ditcher comprising a beam, a cutting head secured thereto, and a series of carriers, removably connected to said beam, said carriers having a lateral and vertical adjustment, substantially as described. 2nd. A drain ditcher comprising a beam, a cutting head secured thereto, carriers removably secured to said beam, said carriers having a lateral and vertical adjustment on said beam, and means for imparting a lateral and vertical movement adjustably on said beam, substantially as described. 3rd. A drain ditcher comprising a beam, a cutting head secured thereto, carriers removably secured to said beam, said carriers having a lateral and a vertical adjustment, and a series of cutters pivotally mounted on said beam, said cutters being adapted to be moved into and out of contact with the ground, substantially as described. 4th. A drain ditcher comprising a beam, a cutting head secured thereto, carriers removably secured to said beam, said carriers having a lateral and vertical adjustment on said beam, means for adjustably regulating the position of said carriers laterally and vertically, and a series of cutters pivotally secured to said beam, said cutters having a movement into and out of contact with the ground, substantially as described.

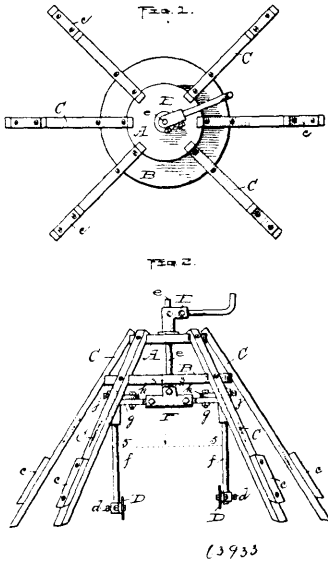
No. 63,932. Mandolin. (Mandoline.)



Roy Berkley Simpson, Dallas, Texas, U.S.A., 22nd September, 1899; 6 years. (Filed 19th October, 1898.)

Claim.—1st. A mandolin having a neck provided with a U-shaped brace mortised therein. 2nd. A mandolin having a sounding board provided with sounding holes arranged parallel, curved braces glued to the underside of said board, one set of said braces being arranged on the outside of and near one end of said holes and another set of braces on the inside of and near the other end of said holes. 3rd. A mandolin having a neck piece, a finger board attached to said neck piece, a shell and a jacket attached to and enclosing the inner end of said neck piece, and a U-shaped brace mortised in said shell and neck piece. 4th. A mandolin having a neck piece, a shell attached to said neck piece, and a U-shaped brace mortised in said neck and said shell. 5th. A mandolin having a neck piece, a shell attached to said neck piece, a U-shaped brace mortised in said neck piece and said shell, and cross braces mortised in said shell. 6th. A mandolin having a neck piece, a shell and a finger board attached thereto, said finger board being provided with steel frets, a U-shaped brace mortised in said shell and neck piece, and a sounding board provided with a base bar and having sound holes. 7th. A mandolin having a sounding board provided with two f-holes, one on each side of the centre of the instrument, whereby the finger board may be extended farther over the sounding board and be provided with an increased number of frets, and the finger board having the increased number of frets, and means under the sounding board for strengthening the board about the edges of the holes of said board without impairing the sound of the instrument comprising braces radiating from said holes. 8th. A mandolin having a sounding board provided with two f-holes just above the bridge, one on each side of the centre of the instrument, whereby the finger board may be extended farther over the sounding board and be provided with an increased number of frets, and the finger board having an increased number of frets, and means under the sounding board for preventing the edges of the board about the sound holes from warping and impairing the sound of the instrument comprising braces radiating from the holes of the sounding board. 9th. A mandolin having a sounding board provided with sound holes in each side thereof consisting of curved slots, a base bar extending substantially the entire length of said board and glued to the underside to the left of the central part thereof, cross braces, and two bars arranged at an angle about the tail part of said board all glued to said board, each of said braces and one of said bars having a groove for said base bar, whereby said base bar is adapted to vibrate with said board independently of said braces and said bar. 10th. A mandolin having a sounding board provided with curved sound holes arranged symmetrically in each side thereof, a base bar glued to said board under and parallel to the G-strings and extending substantially the entire length of said board, the treble side of said board being made thin, whereby the model lines thereof will be along said bar, and cross braces glued to said board without touching said base bar. 11th. A sounding board having sound holes arranged in each side thereof and bars and cross braces attached to the underside of said board and adapted to strengthen the delicate parts thereof, each bar or cross brace having a notch or groove cut therein at the crossing of said bar and brace, whereby said bars vibrate with said board independently of said braces, for the purposes set forth.

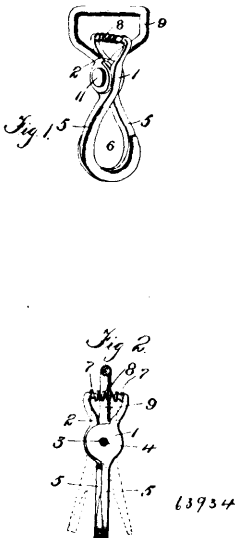
No. 63,933. Cultivator. (Cultivateur.)



John F. Carroll, Worcester, Massachusetts, U.S.A., 22nd September, 1899; 6 years. (Filed 20th March, 1899.)

*Claim.*—1st. The improvements in cultivating machines, substantially as herein described and illustrated in the accompanying drawings. 2nd. The improvements in cultivating machines when adapted for hoeing or banking earth about growing vegetables, substantially as herein described and illustrated in the accompanying drawings. 3rd. The improvements in stationary cultivating machines, whereby the same are adapted to turn or dig up vegetables, substantially as herein described and illustrated in the accompanying drawings. 4th. In a cultivating machine arranged for hoeing vegetables, the combination of a frame, a vertical shaft journaled therein, a supporting arm extending from said vertical shaft, a hoeing blade, and means for setting the hoeing blade at different relative angles with respect to its supporting arm, substantially as described. 5th. In a cultivating machine arranged for digging vegetables, the combination of a frame, an upright vertically movable shaft journaled in said frame, and a digging blade extending radially substantially from the axis of the upright shaft, substantially as described.

No. 63,934. Snap Hook. (Crochet à ressort.)

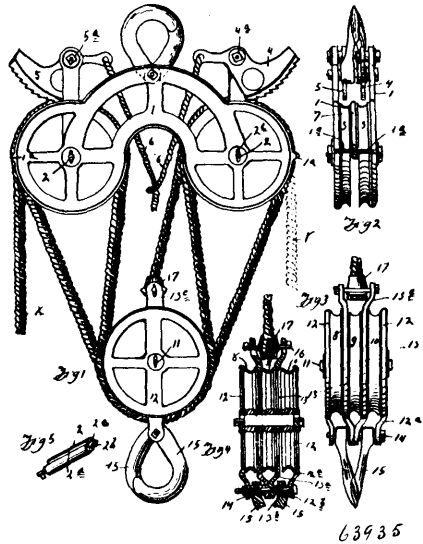


Angus Urquhart, Fort Qu'Appelle, North-west Territories, Canada, 22nd September, 1889; 6 years. (Filed 22nd February, 1899.)

*Claim.*—1st. A snap hook, comprising two members pivotally connected, the front end of said members forming a hook portion,

and also extending in a plane parallel to the plane of the pivot connecting said members, and a spring for normally holding said members in closed position, substantially as described. 2nd. A snap hook, comprising two members pivotally connected, each of said members having a front end formed into a hook portion, said front end being extended in a plane parallel to the plane of the pivot connecting said members, a spring for normally holding said members in closed position, and a bail pivotally connected to said pivot, said bail being adapted to form the attaching means for the connecting strap, substantially as described.

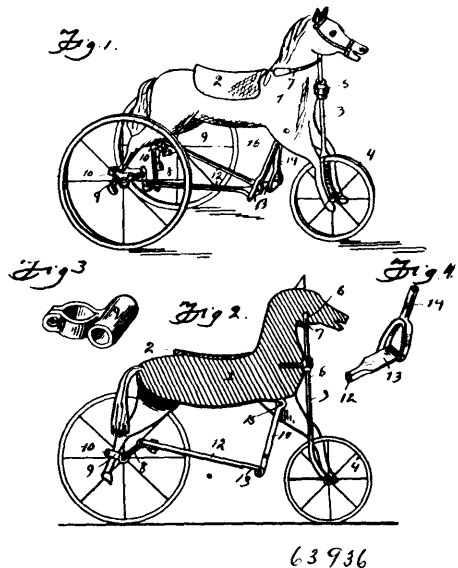
No. 63,935. Block and Tackle. (Poulie.)



Charles S. Kershaw, Syracuse, New York, U.S.A., 22nd September, 1899; 6 years. (Filed 16th August, 1899.)

*Claim.*—1st. In a tackle, a rope fastener, consisting of an external sleeve secured to the tackle block frame, an internal shouldered sleeve adapted to receive the end of the rope, a bail over and secured to the larger end of said conical sleeve, and a two-part conical wedge adapted to separate the fibres of the rope and bind them in the inner sleeve, substantially as set forth. 2nd. A tackle block frame having registering bosses on opposite parts, the securing bolt passing through the frame and bosses, and a pair of interlocking hooks having eyes or holes at right angles with the line of separation between the hooks, which eyes receive the said bosses, substantially as set forth.

No. 63,936. Hobby Horse. (Cheval de bois.)

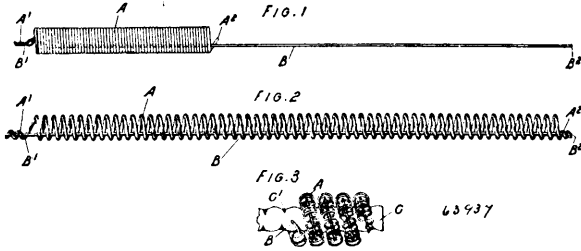


August C. Peterson, Victoria, Illinois, U.S.A., 22nd September, 1899; 6 years. (Filed 24th July, 1899.)

*Claim.*—In combination with the body, the bracket 5, the steering post mounted therein, the steering wheel and handle bar carried

by said post, the brackets 99 adjustably secured to the rear legs, the double crank shaft journalled in said brackets, the parallel for adjusting the position of the handles and weeder relative to the levers fulcrumed in the by portion and the pedal levers connecting said crank shaft and parallel levers, substantially as shown and described.

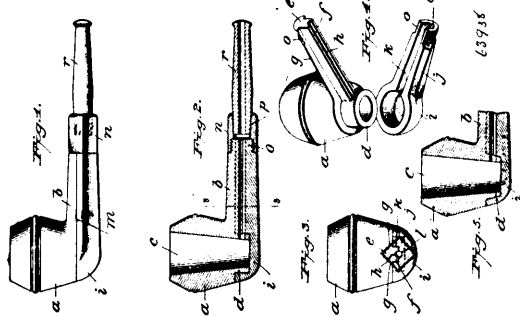
**No. 63,937. Apparatus for Heating or Cooling Fluids.**  
(Appareil pour chauffer ou refroidir les fluides.)



Thomas Clarkson, Deverell Street, Surrey, England, 22nd September, 1899; 6 years. (Filed 19th July, 1899.)

*Claim.*—1st. In apparatus for the heating or cooling of fluids, the combination with a tube, of a helically coiled wire coiled helically upon the tube and a tie wire within the coiled wire, substantially as set forth. 2nd. In apparatus for the heating or cooling of fluids, the combination with a helically coiled wire coiled helically of a tie wire within the coiled wire, as set forth.

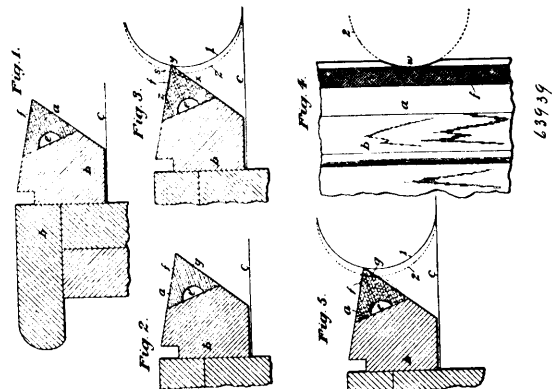
**No. 63,938. Tobacco Pipe.** (Pipe à fumer.)



John Tobin, Monclair, New Jersey, U.S.A., 22nd September, 1899; 6 years. (Filed 2nd August, 1899.)

*Claim.*—A pipe having an upper and a lower member separable from one another, the upper member composed of a bowl having a bottomless cavity, a rabbeted bottom portion and a tenoned stem portion, and the lower member comprising a socket portion adapted to receive the bowl and form its bottom, and a complementary grooved stem portion to receive the tenoned stem portion of the upper member, substantially as described.

**No. 63,939. Billiard Cushion.** (Bande de billiard.)

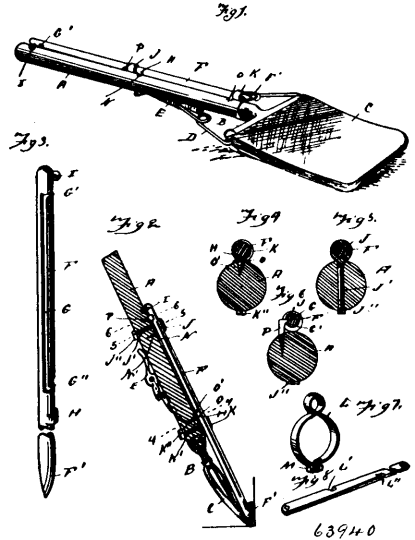


Dudley Kavanagh, New York City, U.S.A., 22nd September, 1899; 6 years. (Filed 14th August, 1899.)

*Claim.*—1st. In a billiard cushion, the combination, with a strip of suitable rubber compound, or other allied gum, of a strip of su table, non-elastic, material, arranged at the top surface of the cushion, and in rear of the nose thereof, in substantially the manner specified,

for the purpose set forth. 2nd. The combination, with a strip of rubber compound, or other allied gum, of a device operating to prevent any material displacement upwardly, at the top surface of, but in rear of the nose of said strip, of the particles composing the latter, and a non-stretchable facing, to the oblique forward surface of said strip, all in substantially the manner and for the purposes set forth.

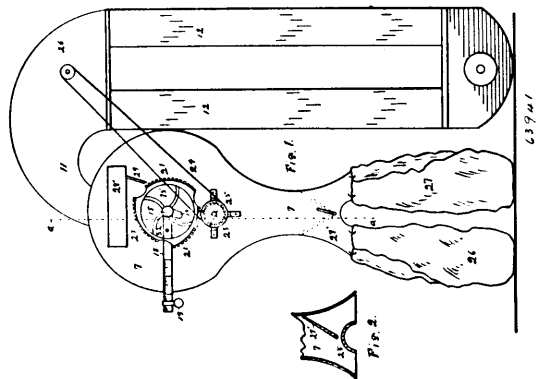
**No. 63,940. Mop Handle.** (Manche de guipon.)



Orlin W. Bradford, Georgetown, Massachusetts, U.S.A., 22nd September, 1899; 6 years. (Filed 1st August, 1899.)

*Claim.*—1st. The combination with a mop provided with the usual handle, head and holding devices, of a rod attached to the handle and adapted to be projected beyond the head to bear upon the mop, and provided with means for holding it in its upper or lower positions, substantially as described. 2nd. The combination with a mop handle and its head, the mop and securing means therefor, of a rod slidably mounted in eyes secured to the handle near the head provided with means for sliding and guiding it, and a cam surface adapted to engage with the handle to hold the sliding rod in either position, substantially as described. 3rd. The combination with the mop handle and its head, adapted to receive the mop, of eyes secured to the handle near the head, a rod slidably mounted in said eyes and provided with longitudinal groove having right angle branched grooves at each end, a screw hook secured in the handle with its pivot in said grooves, curved gearing plates secured to the handle, and a cam projection on the rod adapted to engage said bearing plates when the rod is at either end of its movement, substantially as described.

**No. 63,941. Grain Weigher and Measure.**  
(Balance et mesure pour le grain.)

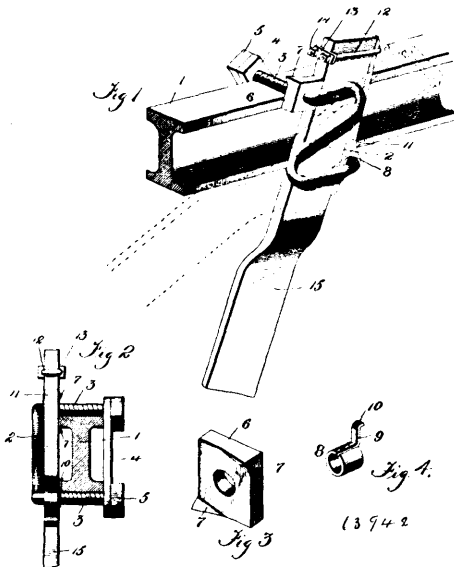


John Wilburn Dutton and Albert Crawford, both of Battle Creek, Michigan, U.S.A., 22nd September, 1899; 6 years. (Filed 10th April, 1899.)

*Claim.*—In a grain weigher and measurer, the combination of a hopper having the elongated slots, a revoluble wheel having grain compartments and an axle with ends in said slots, a wheel or disc attached to one end of the axle and having a series of eccentric

peripheral portions, each of said portions having gear teeth at outer edge, a weight bar, and a pinion to which motion is imparted and adapted to mesh with the gear teeth of the eccentrics, to guard against clogging, substantially as set forth.

**No. 63,942. Coulter for Ploughs.** (*Coutre de charrue.*)

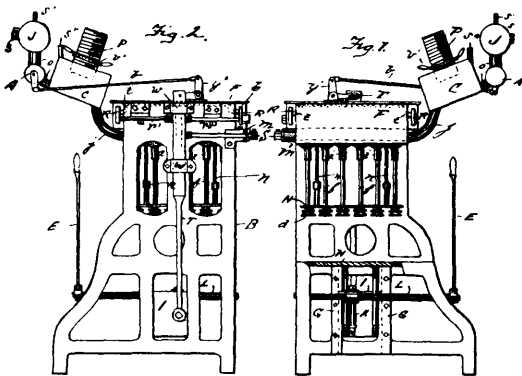


Thomas Fortier, Waterloo, Quebec, Canada, 22nd September, 1899; 6 years. (Filed 4th April, 1899.)

*Claim.*—1st. The combination with a plough beam, of a coulter attachment removably secured thereon, and a coulter adjustably connected to said attachment, substantially as described. 2nd. The combination with a plough beam, of a coulter attachment removably secured thereon, and a coulter removably secured to said coulter attachment, substantially as described. 3rd. The combination with a plough beam of a coulter attachment removably secured thereon, and a coulter adjustably connected to said coulter attachment, substantially as described. 4th. The combination with a plough beam, of a clip removably secured at one side thereof, said clip extending above and below said beam, means for holding said clip in its position on said beam, a support pivotally mounted on said clip, and a coulter removably secured on said support, substantially as described. 5th. The combination with a plough beam, of a clip removably secured thereon, said clip extending above and below said plough beam, means for securing said clip in its position on said beam, a support pivotally mounted on said clips, and a coulter adjustably mounted on said support, substantially as described. 6th. The combination with a plough beam, of a clip removably secured thereon, said clip extending above and below said beam, means for securing said clip in position on said beam, a support pivotally mounted on said clips, and a coulter removably and adjustably secured to said support, substantially as described.

**No. 63,943. Bottle Filling Apparatus.**

(*Appareil à remplir les bouteilles.*)



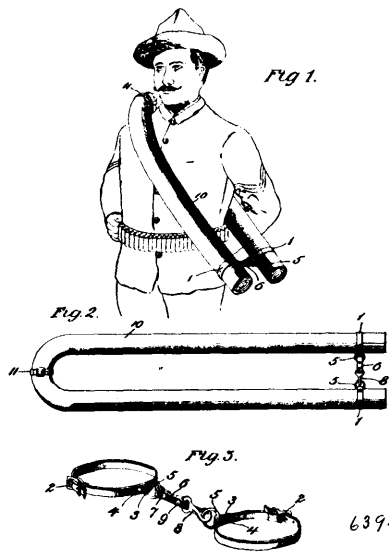
63943

John Jackson, Lonsdale, Rhode Island, U.S.A., 22nd September, 1899; 6 years. (Filed 9th August, 1899.)

*Claim.*—1st. The tank F, divided by partitions into a series of chambers each of which has an outlet at its bottom, horizontal

passages extending through the tank and provided with openings through which the fluid escapes into the chambers, tubular perforated valves sliding back and forth through the passages, and an angular lever, connected to the outer ends of the valves, combined with a vertically moving bar which operates the lever at one end, and a mechanism for operating the rod, substantially as described. 2nd. A tank divided into a series of chambers, each of which has an outlet at its bottom, a vertically moving valve for each outlet, a grate to which all the valves are connected, arms extending from the grate into recessed corners of the tank, and pins extending down from the arms, combined with slotted sliding bars with which the pins connect, levers for moving the bars, and a mechanism for moving the levers, substantially as set forth. 3rd. In a bottle filling apparatus, a chamber or receptacle from which the fluid flows, a tank divided into a series of chambers, each of which has an outlet at its bottom, a valve for each outlet, a grate to which each valve is connected, arms extending from the grate, pins extending from the arms, slotted sliding bars to operate the grate, through the pins, and levers to move the bars, combined with sliding valves, an angular lever for operating the valves, a vertically sliding bar which operates the angular lever and the lever, which operate the grate at the same time, a vertically moving table on which the bottles are placed, and means for operating both the table and the rod, substantially as specified. 4th. In a bottle filling apparatus, a measuring receptacle, a dividing tank connected thereto, a valve for each outlet to the tank an operating shaft, a segment secured thereto, a plate connected to and operated by the segment, a vertically movable table on which the bottles are placed to be filled, the operating levers for controlling the flow of the liquid and the valves and a vertically moving bar connected at its lower end to the plate, and which bar at its upper end operates the levers which control the flow of the liquid to the tank and operate the valve, substantially as shown.

**No. 63,944. Poncho Holder.** (*Porte-pincho.*)



63944

John Howard Tabler, Washington, District of Columbia, U.S.A., 22nd September, 1899; 6 years. (Filed 7th August, 1899.)

*Claim.*—1st. A sling or carrier for a soldier's poncho, and the like, the same consisting of a pair of adjustable straps adapted to be applied to the poncho roll near the ends of the latter, a ring applied to one of said straps, and a snap hook at the free end of the intermediary strap adapted to snap into the aforesaid ring. 2nd. A sling or carrier for a soldier's poncho roll, the same consisting of the opposite straps provided with buckles and adapted to be adjusted about the poncho roll near its ends, keepers located on each of said straps, rings loosely connected to the keepers, and an intermediary strap connected to one of said rings permanently and removably attached to the other.

**No. 63,945. Bog Cutter.** (*Coupe-tourbe.*)

Ashley Anderson, Woodstock, Illinois, U.S.A., 22nd September, 1899; 6 years. (Filed 11th March, 1899.)

*Claim.*—1st. In a cutter of the class described, the combination with a suitable frame, of a series of cutters mounted upon said frame and adapted for loosening the soil, a series of shredding blades also mounted upon said frame and adapted for loosening the shreds in the soil formed by the passage of the cutters, and a vertically disposed scraper also carried by said frame and adapted for levelling the soil, said scraper being further adapted to regulate the depth to which the cutter blades enter the soil, substantially as set forth.

2nd. In a cutter of the class described, the combination with a suitable frame, of a series of inclined reversible cutters mounted on said

Fig. 1.

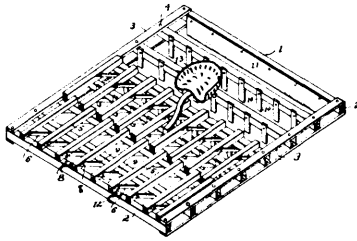
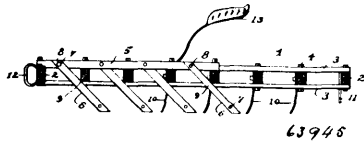


Fig. 2.



frame, a series of shredding blades also mounted upon said frame and adapted for loosening the soil formed by the passage of the cutter blades, and a scraper also carried by the frame and vertically adjustable thereon so as to regulate the depth to which the cutters are adapted to enter the soil, substantially as set forth. 3rd. In a cutter of the class described, the combination with a frame formed of a series of spaced transverse bars having their ends connected, of a series of cutter bars arranged in series on said transverse bars, the cutter bars of each series having one of their ends lying between the adjacent ends of the bars of the adjacent series, a series of cutters mounted on said cutter bars and adapted to loosen the soil, a series of shredding blades mounted upon the transverse bars in rear of the cutters and adapted to loosen the shreds in the soil formed by the passage of said cutters, and a vertically disposed scraper mounted upon the frame and extending throughout the width thereof, said scraper being adapted to regulate the depth to which the cutters enter the soil, substantially as set forth. 4th. In a cutter of the class described, the combination with a frame formed of the series of spaced transverse bars having their ends connected, of a series of cutter bars arranged in series upon said transverse bars, one end of the bars of one series lying between the adjacent ends of the bars of the adjacent series, cutters mounted on said cutter bars, the cutters on each of said cutter bars being arranged at opposite sides of the latter and reversible thereon, a series of shredding blades mounted upon the transverse bars of the frame in rear of said cutters, said shredding blades being arranged out of alignment with each other and the cutters, whereby the entire surface of the soil beneath the frame is adapted to be acted upon, and a scraper mounted upon the frame in rear of the shredding blades and extending throughout the width of said frame, said scraper being adjustable on the frame so as to regulate the depth to which the cutters enter the soil, substantially as set forth. 5th. In a cutter of the class described, the combination with a frame formed of a series of spaced transverse bars having their ends connected, of a series of cutter bars arranged in series upon said transverse bars, one end of the bars of one series lying between the adjacent ends of the bars of the adjacent series, cutters mounted on said cutter bars, the cutters on each of said cutter bars being arranged at opposite sides of the latter and reversible thereon, a series of shredding blades mounted upon the transverse bars of the frame in rear of said cutters, said shredding blades being arranged out of alignment with each other and the cutters, whereby the entire surface of the soil beneath the frame is adapted to be acted upon, a scraper mounted upon the frame in rear of the shredding blades and extending throughout the width of said frame, said scraper being adjustable on the frame so as to regulate the depth to which cutters enter the soil, and a seat mounted upon the frame, substantially as set forth.

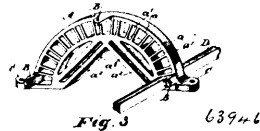
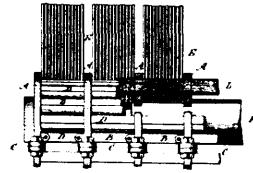
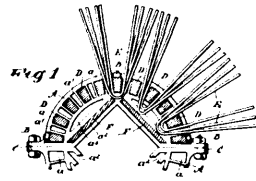
#### No. 63,946. Broom Head for Rotary Sweepers.

(Tête de balai pour balayuses rotatoires.)

The Consolidated Car Fender Company, Jersey City, New Jersey, U.S.A., 22nd September, 1899; 6 years. (Filed 8th August, 1899.)

*Claim.*—1st. A broom head for rotary sweepers, comprising peripheral and radial webs having axially extending and aligning perforations adapted to receive connecting ribs, connecting ribs extending through said perforations and adapted to space the broom

material between them, and backing boards secured to the radial webs within the ribs. 2nd. A broom head for rotary sweepers,



comprising peripheral and radial webs having a circular row of axially extending and aligning perforations adapted to receive connecting ribs, and slots within said row of perforations forming chords of a circle, connecting ribs passing through the circular row of perforations and adapted to hold the space and broom material, and backing boards passing through the slots and supporting the inner ends of the broom material, substantially as described. 3rd. A broom head for rotary sweepers, comprising peripheral and radial webs formed in semi-circular halves and bolted together and having a circular row of axially extending and aligning perforations adapted to receive connecting ribs, slots within said row of perforations forming chords of a circle, connecting ribs passing through the circular row of perforations and adapted to hold the space broom material, and backing boards passing through the slots and supporting the inner ends of the brooms, substantially as described. 4th. A broom head for rotary sweepers, comprising peripheral and radial webs having a circular row of axially extending and aligning perforations adapted to receive connecting ribs and slots within said row of perforations forming chords of a circle, connecting ribs passing through the circular row of perforations and adapted to hold the space broom material, and backing boards passing through the slots and supporting the inner ends of the brooms, substantially as described. 5th. A broom head for rotary sweepers, comprising peripheral and radial webs formed in semi-circular halves and bolted together, and having a row of axially extending and aligning perforations having radial side walls and adapted to receive connecting ribs, slots within said row of perforations forming chords of a circle, and a central hole adapted to receive a shaft, connecting ribs passing through the circular row of perforations and adapted to hold and space the broom material, and backing boards passing through the slots and supporting the inner ends of the broom material, substantially as described.

#### No. 63,947. Engine. (Machine.)

John Forrest Walters, Clyde House, Twickenham, assignee of Charles Henry Bryant, Chiswick Mall, Middlesex, both in England, 25th September, 1899; 6 years. (Filed 17th August, 1898.)

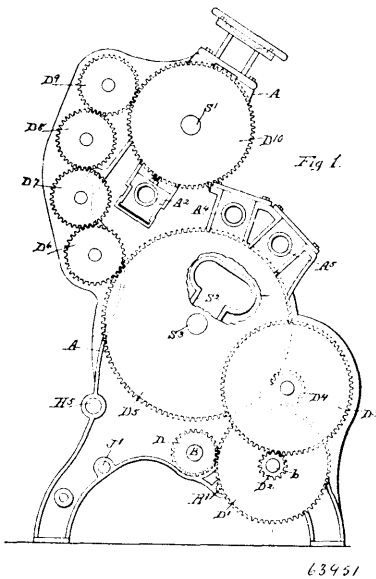
*Claim.*—1st. In an internal combustion engine, the method of effecting ignition and combustion, which consists: First, in heavily charging air with an hydrocarbon oil or other fuel; second, in bringing into company therewith without intimate mixture a suitable quantity of ordinary air, and third, in compressing the associated charged and ordinary air till ignition takes place, substantially as and for the purpose specified. 2nd. In an internal combustion engine, the method of effecting ignition and combustion, which consists: First, in dividing the air entering the engine in two parts; second, in heavily charging one part in a pulverizer or mixing chamber with a hydrocarbon oil or other fuel; third, in admitting the two parts of the air into the cylinder side by side but not intimately mixed; fourth, in compressing the contents of the cylinder till ignition takes place, substantially as and for the purpose specified. 3rd. In an internal combustion engine, the combination with a pulverizer or mixing chamber provided with an oil injector and communicating with an air inlet and the cylinder of internal radial projections, substantially as described. 4th. In an





and straps rigid in desired adjustment, depending tines having bent upper ends extending through apertures in the vertical sides of angle bars E, tines clamping bolts extending through the bars and co-operating with the apertured sides of the bars for holding the tines in position, and means for securing the angle bars to a cultivator, substantially as shown and described. 4th. The combination of a cultivator provided with side bars B, hinge sections C secured to the bars by clamping plates c and bolts c', laterally projecting bars E having hinge sections D at their inner ends which unite with hinge sections C by pins F, a pivotal connection between the bars and means for holding the same rigid, and tines depending from the bars, substantially as shown and described. 5th. In an implement of the character described, the combination with a cross bar, of a tine formed with a goose neck at its upper end for embracing the bar, the extremity of the neck being turned back upon itself to constitute an elongated loop, and securing bolt extending through the bar and tine loop, whereby the tine may be given the desired inclination and there secured, substantially as specified. 6th. In an implement of the character described, the combination with an angle bar having two apertures in its vertical side, of a tine adapted to extend through one of the apertures, the extremity of the tine adapted to extend through one of the apertures, the extremity of the tine being turned backward to form an elongated loop with the said extremity extending through the loop and the horizontal side of the bar for securing the tine in desired adjustment, substantially as shown and described.

**No. 63,951. Ironing Machine.** (*Machine à repasser.*)

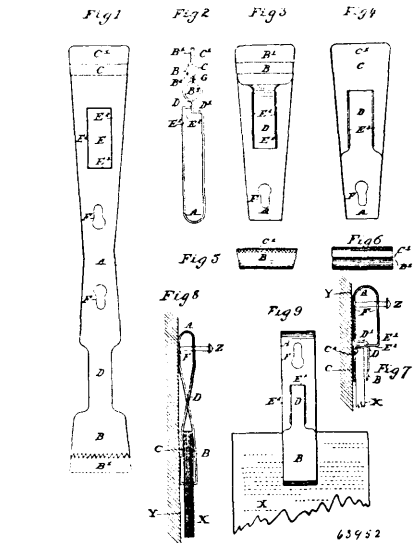


Adams Laundry Machinery Company, assignee of Alonzo Sharp, all of Troy, New York, U.S.A., 25th September, 1899; 6 years. (Filed 19th April, 1899.)

*Claim.*—1st. In an ironing machine, the combination with an upper and an under set of pressure rollers, of a supporting frame having inclined slideways for the journals of one roller in each set, and means for moving the journals along the slideways, substantially as described. 2nd. In an ironing machine, the combination with a supporting frame having upper and under inclined slideways, of an upper set of pressure rollers having the journals of the upper roller movable in the upper slideways, an under set of pressure rollers having the journals of the under roller movable in the under slideway, and means for moving the journals along the respective slideways, substantially as described. 3rd. In an ironing machine, the combination with an upper and an under set of pressure rollers, of an inclined way having a knife edge on its upper end and leading from the under roller of the upper set to the under roller of the under set, substantially as described. 4th. In an ironing machine, the combination with the inclined way connecting an upper with an under set of pressure rollers, of a pair of small feed rolls provided with intermeshing pinions, and an intermediate friction roll engageable with one of such feed rolls and with the more slowly moving roller of the under set of pressure rollers, substantially as described. 5th. In an ironing machine, the combination with an upper set of pressure rollers having the plane connecting the axes of the individual rollers in the set inclined, of an under set of pressure rollers comprising a clothed roller and two polishing rollers having the radial plane which passes from the axis of the clothed roller midway between the axes of the polishing rollers inclined and approximately parallel with the radial plane connecting the axes of the upper set of rollers, an inclined way connecting the two sets of rollers, and strippers for the polishing rolls, substantially as described. 6th. In

an ironing machine, having an upper and an under set of pressure rollers, the under set consisting of a slowly rotating clothed roller and a pair of rapidly rotating polishing rollers, the combination with the polishing rollers and pinions fixed upon and larger in diameter than the rollers and lapping each other, of a driving gear having its perimeter lapping and actuating both lapping pinions, substantially as described. 7th. In an ironing machine, or the like, a change gear comprising in combination, a pair of parallel shafts, three gears of different diameters on one of said shafts fixed to rotate together, and three gears of different diameters fixed upon a sleeve common to each on the other shaft, said gears being adapted to inter-mesh in pairs, one on one shaft with one on the other shaft, and said sleeve being adjustable upon its shaft to bring the gears into mesh with each other in pairs successively, substantially as described. 8th. In an ironing machine, the combination with an upper set and an under set of pressure rollers, each set having a clothed roll, of a stationary inclined way connecting said upper and under sets of rolls, a pair of co-operative feed rolls on opposite sides of the plane of said inclined ways, provided with intermeshing pinions, and means for imparting to each of said clothed rolls and feed rolls a uniform rate of peripheral speed, substantially as described.

**No. 63,952. Clothes Pins Applicable as Clips Generally.** (*Epingles à linge.*)



Victor Bergman and William George Boyle, both of Mysia, Victoria, Australia, 25th September, 1899; 6 years. (Filed 15th April, 1899.)

*Claim.*—1st. In a clip or clothes pin, consisting of one single piece of sheet material, the combination with a U-shaped spring body as A having legs the tendency of which is to open outwardly and wide jaws the tendency of which is to press against one another, of near one jaw, a part having a narrow slot, and near the other jaw a narrow neck passing through said slot, all substantially as and for the purposes set forth and as illustrated. 2nd. In a clip or clothes pin, consisting of one single piece of sheet material having jaws which press against one another, the combination with the U-shaped spring body A, of the neck D, the part having a slot E through which said neck passes, the sides E<sup>2</sup> of which slot prevent lateral movement of said neck, and an edge E<sup>1</sup> which prevents undue opening of the jaws, substantially as and for the purposes set forth. 3rd. In a clip or clothes pin, consisting of one single piece of sheet material, the combination as a whole with a U-shaped spring body A, of the slot E with edge E<sup>1</sup> and sides E<sup>2</sup>, neck D with part D<sup>1</sup> bent at right angles to the remainder, and jaws B and C forming an area B<sup>2</sup> and having flat extremities at B<sup>1</sup>, C<sup>1</sup>, substantially as and for the purposes hereinbefore specified and as illustrated. 4th. In a clip or clothes pin, consisting of one single piece of sheet material, the combination as a whole with a U-shaped spring body A, of the slot E with edge E<sup>1</sup>, and neck D having a part D<sup>1</sup> bent at right angles to the remainder, and flat jaws B and C arranged to form a right angled recess C<sup>2</sup>, all substantially as and for the purposes hereinbefore specified.

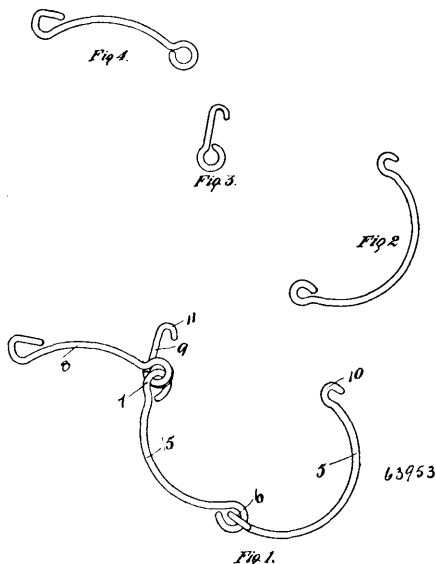
**No. 63,953. Device for Tying Bags.**

(*Appareil pour attacher les sacs.*)

Henry Thomas Knight and Arthur Ardagh, both of Toronto, Ontario, Canada, 25th September, 1899; 6 years. (Filed 7th April, 1899.)

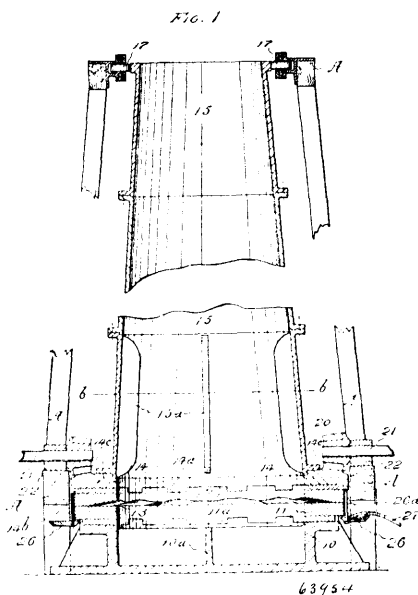
*Claim.*—1st. In a tie for bags made of wire of suitable material and strength, made in semicircular sections, these sections being securely looped together, the one end of one section being hooked

shaped, the other end of the other section being a closed loop, substantially as set forth. 2nd. In a tie for bags made in semi-circular



sections of wire, having in combination a lever substantially secured into a looped end of a section of the tie, as and for the purposes specified. 3rd. In a tie for bags, the combination of the lever and having a securing device, secured substantially into the closed looped end of the tie, being in the form of a hook, all formed and arranged in detail as hereinbefore set forth.

**No. 63,954. Pulverizer. (Pulverisateur.)**

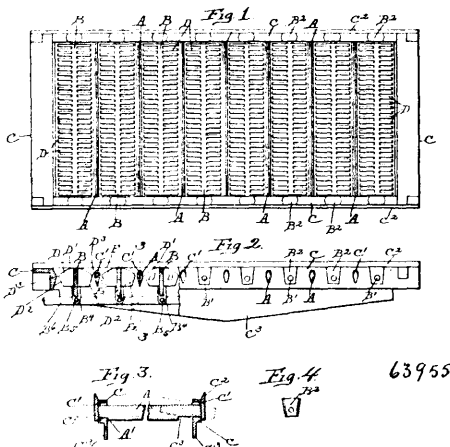


Louis Charles Park, and Robert Alexander Anderson, both of Vancouver, British Columbia, Canada, 25th September, 1899; 6 years. (Filed 14th April, 1899.)

*Claim.*—1st. In a machine for pulverizing rock and other earthy matters, a tower arranged over a fixed support, an abrading ring on the base of the tower having its inner side flared upward and a ring 11, secured on the fixed support or base having its upper surface approximately on a horizontal plane, and said rings to lie proximate to each other so that all matters may be finely pulverized before being allowed to escape therebetween. 2nd. A rock pulverizer consisting of a fixed base or support having a circular recess for the reception of rock, to form a grinding support, a rotatable tower having its base on a horizontal plane in proximity with a fixed base, ribs or leaves integral with the tower and arranged vertically therein just above its base, whereby the rocks held therein will be moved with the tower and a pulverizing area produced between the rocks rotating and those retained stationary, and means for rotating the

tower, as and for the purposes specified. 3rd. In a pulverizer, the principle of which is a tower of the matter to be pulverized, enclosed in a cylindrical shell the one part of which shell is fixed and the other part made to turn, causing a pulverizing area, said shell consisting of a base having a circular recess therein, ribs 10<sup>a</sup>, arranged across such recess, in combination with a hollow cylindrical tower 15, arranged over the base with its lower edge in proximity with the rim of the base, and means for rotating the base or the tower while the other part is stationary, as and for the purposes specified.

**No. 63,955. Grate. (Grille.)**



Spenser Neemes, assignee of Daniel Norton, both of Troy, New York, U.S.A., 25th September, 1899; 6 years. (Filed 7th April, 1899.)

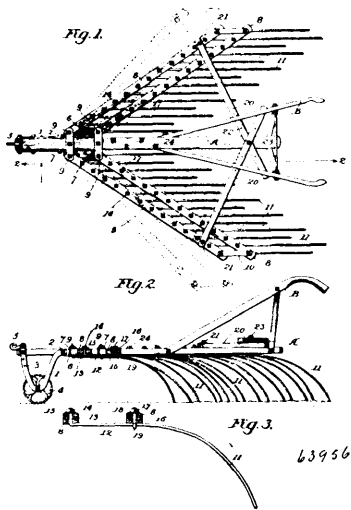
*Claim.*—1st. In a grate, the combination with a series of rocking bars, of a corresponding series of resistance bars, with the individual members of one series alternating with those of the other series and parallel therewith, and the axes of the rocking bars in approximately the same plane with the resistance bars, a series of teeth projecting laterally from each of the two opposite sides of the several rocking bars almost to the neighbouring resistance bars and having their upper surfaces in a plane higher than the plane occupied by the upper surfaces of the resistance bars and curved downwardly toward the resistance bars, and means for rocking the toothed bars whereby the points of the teeth can be moved toward, from and along the side of a resistance bar without being projected above the general level of the upper grate surface, substantially as described. 2nd. In a grate, the combination with a resistance bar tapered transversely on its upper side surfaces and bevelled transversely on its lower side surfaces, of a rocking bar having its axis of movement in approximately the same horizontal plane with the resistance bar, a series of teeth projecting from the rocking bar approximately to the resistance bar, having the upper surface of the several teeth curved, and the projecting end surfaces undercut or bevelled, and means for rocking the toothed bar, whereby a cutting edge formed at the junction of the curved and bevelled surfaces of a tooth is adapted to co-operate with a resisting edge at the junction of the upper and lower bevelled surfaces on the resistance bar, substantially as described. 3rd. In a grate, the combination with a pair of rocking bars provided each with a row of teeth projecting horizontally toward the other bar, having the teeth severally curved on the upper surfaces, of a resistance bar bevelled or tapered transversely on its upper side surfaces and co-operatively interposed between the rocking bars, but with its uppermost surface on a lower plane than the uppermost surface of the teeth, whereby a clinker receiving channel is formed on the opposite sides of the interposed bar between the tapered bar and the curved teeth of the rocking bars, substantially as described.

**No. 63,956. Weeder. (Sarclleur.)**

The Keystone Farm Machine Company, York, assignee of Edwin R. Maime, Mainsburg, and Daniel H. Pitts and Lyman B. Smith, of Mansfield, all in Pennsylvania, U.S.A., 25th September, 1899; 6 years. (Filed 5th April, 1899.)

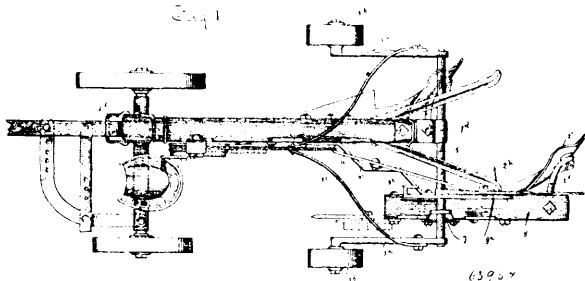
*Claim.*—1st. In a weeder, the combination with a central beam and suitable handles, a pair of parallel bars on each side of the beam and pivotally connected thereto, and trailing spring wire teeth pivotally connected to said bars each tooth being arranged parallel with the beam and connected to both bars of the pair, and means for adjusting the parallel bar, substantially as described. 2nd. In a weeder, the combination with the beam, suitable handles therefor, and the plates 6 and 7 connected to the beam, of two pairs of brace rods for adjustably connecting the outer ends of the bars with the beam, and a series of spring wire teeth having straight portions arranged parallel with the beam, the forward end of each tooth being vertical and extending through one of the bars and the rear bars being provided with eye bolts through which the teeth pass,

substantially as described. 3rd. In a weeder, the combination of the beam, suitable handles therefor, a wheel frame and wheel on the



forward end of the beam, plates 6 and 7 connected with the beam in the rear of the wheel frame, pairs of parallel bars pivotally connected to said plates on opposite sides of the beam, links connecting the outer ends of the parallel bars, brace rods adjustably connecting the parallel bars with the rear end of the beam, a series of downwardly and rearwardly curved spring teeth having straight portions extending between the parallel bars, eye bolts in the rear bars through which the teeth pass, the ends of said teeth being bent vertically and extending through holes in the forward bars, and said teeth being arranged to remain at all times parallel with each other and with the beam, substantially as described.

**No. 63,957. Plough. (Charruc.)**



Mathias Julius Seifried and Margarette Shuerger, both of South Bend, Indiana, U.S.A., 25th September, 1899; 6 years. (Filed 28th March, 1899.)

*Claim.*—1st. An implement of the character described, having one or more beams, a plough and a colter secured to each beam, and a disc secured to each colter and adapted to be revolved by the forward movement of the implement, whereby weeds and grass may be removed from the colter, substantially in the manner set forth. 2nd. An implement of the character described, having one or more beams, a plough and a colter secured to each beam, and a disc secured to each colter and adapted to be revolved by the forward movement of the plough, and means for elevating said beams and ploughs, substantially as set forth. 3rd. An implement of the character described, the combination of a main beam, and an auxiliary beam, a plough secured to each beam, and means for elevating said ploughs and beams consisting of a shaft secured to the latter and provided with arms and wheels, a lever secured to said shaft, a sprocket wheel supported on the main beam, and a chain and rod connection between said sprocket and lever and the shaft arms, substantially as set forth. 4th. In an implement of the character described, the combination of a main beam and an auxiliary beam, a plough and a colter secured to each beam, a disc secured to each colter and adapted to revolve, and means for elevating said beams and ploughs consisting of a shaft having an operating lever, sprocket wheel and a chain and rod connection between said wheel and operating lever, substantially as described. 5th. In an implement of the character described, the combination of a main beam, a plough and a colter secured to said beam, a revolving disc, and means for elevating said

ploughs and beams, substantially as described. 6th. In an implement of the character described, the combination of a main beam, a plough and colter secured to said beam, a revolving disc secured to said colter, an auxiliary beam supported by said main beam, a plough and a colter secured to said auxiliary beam, a revolving disc secured to said colter, and means for elevating said ploughs and beams, consisting of a shaft secured to and supported by the main beam, arms on said shaft, wheels on said arms, a lever secured to said shaft and means for operating said lever from the front of the implement, substantially as set forth. 7th. In an implement of the character described, the combination of a main beam, a plough and a colter secured to said beam, a revolving disc secured to said auxiliary beam supported by said main beam, a plough and a colter secured to said auxiliary beam, a revolving disc secured to said colter and means for elevating said frame and ploughs consisting of a shaft secured to said beams and supported by said main beam, arms on said shaft, wheels on said arms, a lever secured to said shaft, a sprocket wheel secured to the main beam, a chain and bar connection between said sprocket wheel and said shaft arms and said lever respectively, substantially in the manner and for the purpose set forth. 8th. In an implement of the character described, the combination of a main beam, a plough and a colter secured to said beam, a revolving disc adjustably secured to said colter, an auxiliary beam detachably secured to said main beam, a plough and a colter secured to said auxiliary beam, a revolving disc adjustably secured to said colter, and means for elevating said beams and ploughs, substantially as described. 9th. In an implement of the character described, the combination of a main beam, a plough and a colter adjustably secured thereto, a revolving disc adjustably secured to said colter, an auxiliary beam detachably secured to said main beam, a plough and a colter adjustably secured to said auxiliary beam, a revolving disc adjustably secured to said colter, and means for elevating said beams and ploughs adapted to be operated either from the front end or the rear end of the implement, substantially as set forth. 10th. In an implement of the character described, the combination of a main beam, a plough and a colter adjustably secured thereto, a revolving disc adjustably secured to said colter, an auxiliary beam detachably secured to said beam, a plough and a colter adjustably secured to said auxiliary beam, a revolving disc adjustably secured to said colter, and means for elevating said beams and ploughs consisting of a shaft secured to said beams, arms on said shaft, wheels on said arms, a lever secured to said shaft, a sprocket wheel secured to the main beam, and chain and bar connections between said sprocket wheel and said shaft arms and said lever respectively, substantially as described. 11th. In an implement of the character described, the combination of a main beam, a plough and a colter adjustably secured to said beam, a revolving disc adjustably secured to said colter, and means for elevating said beams and ploughs, consisting of a shaft supported on the main beam and secured to the auxiliary beam, arms on the ends of said shaft, wheels on the ends of said arms, forwardly extending bars secured to said arms, a lever secured to said shaft, a bar secured to said lever, a hooked rod for limiting the forward movement of said lever, a sprocket wheel secured by means of a standard to the main beam, means for turning said sprocket wheel, means for limiting the backward rotation of said sprocket wheel, and a sprocket chain travelling over said sprocket wheel and having its ends secured to the forwardly extending bars of the shaft arms, and to the lever bar respectively, all substantially in the manner and for the purpose set forth.

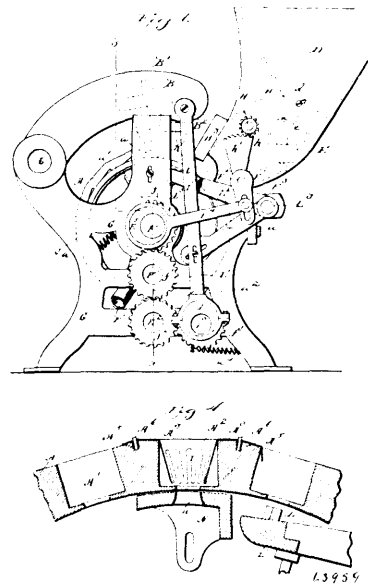
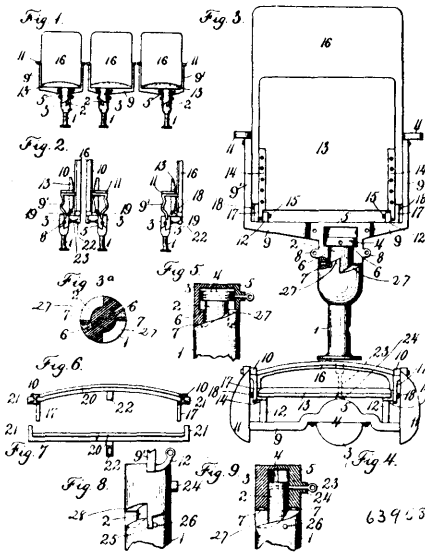
**No. 63,958. Folding Chair. (Fouteuil pliant.)**

Arthur Hosmer and Charles Herbert Silliman, both of Fort Worth, Texas, U.S.A., 25th September, 1899; 6 years. (Filed 20th February, 1899.)

*Claim.*—1st. In a folding chair provided with a cap attached to the bottom thereof and a stationary support, said cap and said support each having a pair of inclines extending far enough to allow said chair to rotate automatically one-fourth around when folded, anti-friction rollers being placed between the adjacent surfaces of said inclines. 2nd. In a folding chair provided with a cap attached to the bottom thereof and a stationary support, said cap being pivotally mounted and having a pair of inclines extending one half around the support, said support having two inclines adjacent to the inclines of said cap constituting the shoulder of said support, anti-friction rollers being placed between said inclines, whereby the chair is automatically rotated one-fourth around when folded. 3rd. In a folding chair provided with a pivoted cap and a stationary support, a key for locking said chair in position for occupation, said cap having a socket formed thereon with the opening extending in the cap, said support having a head provided with an aperture in alignment with the opening in said cap when said chair is in position for occupation, and means for withdrawing and inserting said key from and in said openings. 4th. In a folding chair provided with a pivoted cap and a stationary support, a key for locking said chair in position for occupation and an arm formed on the back of the chair adapted to withdraw said key and thereby release the chair at the instant the chair is folded. 5th. In a folding chair provided with a pivoted cap and stationary support, a key for locking the seat of the chair in a folded position and an arm or lug formed on the back of

the chair and pivotally connected to said key whereby said seat can be released and brought to a position for occupation. 6th. In a

reduced apertures in their bases, centreing baskets fitted within the receptacles or pockets, and having a plurality of yielding fingers



folding chair provided with a pivoted cap and a stationary support, said cap having an annular interior flange provided with two inclines on the underside thereof, said support having a head above said flange and a shoulder below said flange formed into two inclines corresponding with the inclines of said flange, anti-friction rollers being placed between the adjacent surfaces of said inclines. 7th. Folding chairs arranged in pairs and having stationary supports and caps pivoted thereon, the cap and the support of each chair having pairs of inclines extending far enough around to cause said chairs to rotate automatically one-fourth around when folded, anti-friction rollers being placed in the inclines of said cap, said inclines being so arranged as to cause said chairs to turn their backs to each other when rotated. 8th. Folding chairs arranged in pairs and having stationary supports and caps pivoted thereon, said chairs being placed off their centres away from each other and said caps and supports having pairs of inclines and anti-friction rollers between the adjacent surfaces thereof whereby said chairs turn their back to each other and drop below the position for occupation between said supports. 9th. Folding chairs arranged in pairs and have stationary supports and caps pivoted thereon, keys for locking said chairs in position for occupation and for locking the seats of the chairs in folded position, and means for releasing said parts automatically, said chairs being placed off their centres away from each other, the support and the cap of each chair having each a pair of inclines and anti-friction rollers between the adjacent surfaces thereof whereby said chairs will drop down below the position for occupation and turn their back to each other between said supports when folded. 10th. A folding chair having a stationary support, a cap pivoted thereon, supporting arms for the seat formed integral with said cap and projecting upward and then backward and pivotally connected to the back of the chair, arms formed on and projecting backward from said supporting arms, lugs on the rear corners of the seat for engaging said arms, trunions on said seat forward of said lugs, bearings for said trunions attach to the back of the chair, and a key pivotally connected to the back of the chair for locking and releasing the seat and the chair.

**No. 63,959. Raisin Seeder.** (*Semoir à raisin.*)

The Monarch Seeder Company, Kingston, Pennsylvania, assignee of William Beach Fenn, Bayonne, New Jersey, both in the U.S.A., 25th September, 1899; 6 years. (Filed 13th March, 1899.)

*Claim.*—1st. In a raisin seeder, the combination with an apertured raisin support, of a tubular extracting head having a tubular movable nose piece provided at the closed end with a plurality of needle openings, and a bunch of extracting needles rigidly fitted to the head and entirely housed within the latter and its movable nose piece, said needles having points working through the needle openings, substantially as set forth. 2nd. In a raisin seeder, the combination with an apertured raisin support, of a tubular extracting head having a tubular movable nose piece provided at its closed end with a plurality of needle openings, a bunch of extracting needles rigidly fitted to the head and housed entirely within the same and its nose piece, each needle working within one of the needle openings, and a spring encircling the bunch of needles and also housed within the extracting head and the nose piece thereof, substantially as set forth. 3rd. In a raisin seeder, a raisin support or carrier, having a series of receptacles or pockets provided with

converging over said apertures and having their extremities lying in close proximity to the bases of the receptacles or pockets, and seed extracting heads carrying needles adapted to pass through the receptacles or pockets and the apertures thereof, substantially as set forth. 4th. In a raisin seeder, a raisin support or carrier having a series of receptacles or pockets, centreing baskets fitted within the receptacles or pockets and formed of a single blank of sheet metal having a plurality of yielding inwardly convergent straight fingers and lateral projecting flanges secured to the outer face of the support or carrier, and seed extracting heads carrying extracting needles, substantially as set forth. 5th. In a raisin seeder, the combination of a movable carrier having a series of raisin receptacles or pockets therein, seed extracting mechanism, chutes arranged over the carrier, a hopper arranged beyond the carrier, and transferring mechanism located in the space between the hopper and carrier and having means for carrying individual raisins bodily from the lower end of the hopper and directing the same into said chutes, substantially as set forth. 6th. In a raisin seeder, an apertured raisin support, a slitter arranged to operate against the underside of the raisin to slit the skin, means for holding and centreing the raisin while the slitter is in action, and a seed extractor arranged to work through the apertures at a point in advance of the slitter to provide for forcing the seed through the slitted or broken skin, substantially as set forth. 7th. In a raisin seeder, the combination of a cylindrical rotary carrier having a series of apertured receptacles or pockets in its periphery, chutes arranged over the carrier, a hopper arranged beyond the carrier, a plurality of reciprocating elevators arranged at the lower end of the hopper and adapted to elevate single raisins on their upper ends, a series of oscillatory pointed transferring fingers adapted to transfer the raisins from said elevators to said chutes, and centreing heads arranged in alignment in rear of the chutes and adapted to press against the raisins when advanced beyond the plane of the latter, substantially as set forth. 8th. In a raisin seeder, an apertured raisin support, a slitter arranged to operate through the apertures against the underside of the raisin to slit the skin, and independent extracting needles arranged to work through the aperture at a point in advance of the slitter to provide for forcing the seed through the slitted or broken skin, substantially as set forth. 9th. In a raisin seeder, an apertured raisin support, a slitter arranged to operate through the apertures against the underside of the raisin to slit the skin, a holding and centreing head arranged to co-operate with the slitter for holding the raisin while the latter is in action, and independent extracting needles arranged to work through the apertures at a point in advance of the slitter to provide for forcing the seed through the slitted or broken skin, substantially as set forth. 10th. In a raisin seeder, the combination with the apertured carrier and slitter working through the apertures therein on the underside, of the movable head for holding the raisins over said aperture, the independent head for subsequently holding said raisins and the extracting needles working through said last-mentioned head and the apertures, substantially as described. 11th. In a raisin seeder, the combination with the apertured carrier, the slitter working through said apertures on the underside, and the spring pressed head having the centreing concavity in its operative face adapted to bear on the raisins and hold the same while being cut, of the independent extracting needles working through said apertures from the upper side, substantially as described. 12th. In a raisin

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seeder, the combination with the carrier having the apertured receptacles or pockets therein, the centring fingers in said pockets and the extracting needles working through the apertures, of the centring and holding heads and the slitters co-operating with said heads through the apertures for cutting the under skins of the raisins, substantially as described. 13th. In a raisin seeder, the combination with the carrier having the series of apertured pockets or receptacles therein and the yielding centring baskets located in said pockets, of the co-operating holding head and slitter, the extracting needles, and the independently movable head surrounding said needles, substantially as described. 14th. In a raisin seeder, a raisin support or carrier having apertured receptacles or pockets therein, a stationary bar underlying the support or carrier and having a series of corresponding apertures therein, extracting headings carrying needles adapted to pass through the aligned apertures, and a movable wiper arranged to reciprocate across the plane of the aligned apertures when the needles are projected therethrough, said wiper having yielding surfaces to engage against the needles, substantially as set forth. 15th. In a raisin seeder, a raisin support or carrier having apertured receptacles or pockets therein, extracting heads carrying needles adapted to pass through the apertures and an oscillatory wiper adapted to be moved against said needles and provided at its upper edge with a series of spaced upwardly extending brushes, substantially as set forth. 16th. In a raisin seeder, the combination of a cylindrical rotary carrier having apertured receptacles or pockets therein, a swinging frame supported above the carrier and carrying a series of extracting heads, a bar arranged longitudinally above the carrier and pivotally mounted at its ends in a swinging frame, said bar carrying combined centring and holding heads adapted to bear against the raisins before being operated upon by the extracting heads, and suitably arranged guides engaging with said pivoted bar at its ends to provide for turning the same to an operative position, substantially as set forth.

#### No. 63,960. Manufacture of Matches.

(Fabrication d'allumettes.)

The Non-Poisonous Strike-Anywhere Match Syndicate, 37 Walbrook, London, assignee of Walter George Cordes, Castle Street, Southwark, England, 25th September, 1899; 6 years. (Filed 9th December, 1898.)

*Claim.*—A preparation or composition for match heads, which may be struck anywhere and without the use of white or yellow phosphorus in the manufacture thereof, consisting of chlorate of potash, ground glass, whitening, plaster of paris or cement, glue and water, a solution of a dye to suit taste, and amorphous red phosphorus, the whole prepared in or about the proportions specified and in the manner substantially as set forth.

#### No. 63,961. Manufacture of Matches.

(Fabrication d'allumettes.)

The Non-Poisonous Strike-Anywhere Match Syndicate, 37 Walbrook, London, assignee of Sigmund Adolf Rosenthal and Stanislaus Johann von Rouvcki, both of 37 Walbrook, all in London, England, 25th September, 1899; 6 years. (Filed 9th December, 1898.)

*Claim.*—In the manufacture without yellow phosphorus of matches, capable of being struck anywhere, forming the heads by dipping the splints (of wood, wax tapor or other material) into a mixture composed of sulphide of antimony, chlorate of potash, amber and gum arabic, and afterwards coating the head thus formed with a mixture consisting of sulphide of antimony, glass, powder, glue and water, amorphous, phosphorous and chlorate of potash the several ingredients of each mixture being mixed in or about the proportions specified and the mixtures applied to the match in the course of manufacture, substantially as hereinbefore described.

#### No. 63,962. Method of Combining Gases.

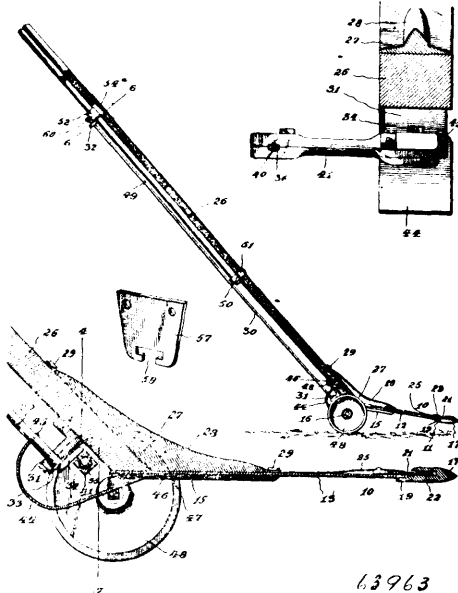
(Methode de combiner les gaz.)

Max Schroeder and The Actien Gesellschaft für Zink Industrie Vormals Wilhelm Grillo, of Oberhausen, Germany, and August Heckscher, New York City, New York, U.S.A., assignees of Max Schroeder aforesaid, 25th September, 1899; 6 years. (Filed 25th October, 1898.)

*Claim.*—1st. The process of recovering sulphuric acid or sulphuric anhydride from gases containing  $\text{SO}_2$  and O, which consists in passing said gases through a mass comprising a catalytic agent and soluble salts, substantially as described. 2nd. The process of effecting the chemical union of gases, by catalysis, from a mixture of said gases together with accompanying impurities, and subsequently releasing the catalytic agent from its carrier or vehicle, which consists in passing said gases through a contact mass containing a catalytic agent and one or more soluble salts serving as a carrier or vehicle therefor, until the efficiency of the mass has become impaired by the action of the impurities thereon, and then dissolving out the said soluble carrier salts, thereby releasing the catalytic agent, substantially as described. 3rd. The process of effecting the chemical union of gases, by catalysis, from a mixture of said gases, together with accompanying impurities, and sub-

sequently releasing the catalytic agent from its carrier or vehicle and recovering it, which consists in passing said gases through a contact mass containing a catalytic agent and one or more soluble salts serving as a carrier or vehicle therefor, until the efficiency of the mass has become impaired by the action of the impurities thereon, then dissolving out said soluble carrier salts, thereby releasing the catalytic agent, separating it from the solution, and then removing from it the impurities, substantially as described. 4th. The process of producing a material suitable for use in catalysis, which consists in making a mixture containing a liquid, a platinum salt and one or more suitable salts, evaporating the mixture and obtaining salt crusts therefrom, and reducing the platinum salt in the mass to the metallic state so as to leave it occluded therein in a state of fine subdivision, substantially as described. 5th. The process of producing a material suitable for use in catalysis, which consists in making a mixture containing a liquid, a catalytic agent, and one or more suitable soluble salts, evaporating the mixture and obtaining salt crust therefrom, wherein the said soluble salts serve as soluble carriers or vehicles for the catalytic agent, substantially as described. 6th. A contact body for use in catalytic processes, comprising salt crusts, containing a platinum salt distributed through a mass of one or more other soluble salts which serve as a carrier or vehicle therefor, substantially as described. 7th. A contact body for use in catalytic processes, comprising a catalytic substance distributed through a mass of one or more soluble salts serving as a carrier or vehicle therefor, substantially as described. 8th. A contact body for use in catalytic processes, comprising a catalytic substance distributed through a mass of one or more soluble salts stable in the presence of hot  $\text{SO}_2$  and O and serving as a carrier or vehicle for the the catalytic substance, substantially as described.

#### No. 63,963. Lawn Trimmer. (Couteau pour pelouses.)

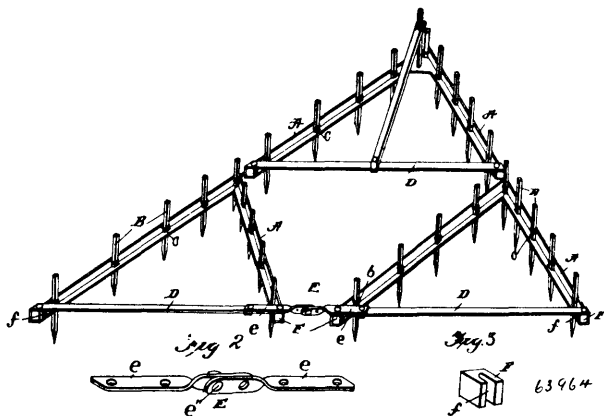


Samuel Walters, Warren, Pennsylvania, U.S.A., 26th September, 1899; 6 years. (Filed 4th May, 1899.)

*Claim.*—1st. A lawn trimmer consisting of a frame plate carrying at its front end a cutter apparatus, arms fast with the frame plate and projecting rearwardly and downwardly therefrom, carrying wheels mounted on said arms, a staff fixed to the frame plate, and operating devices supported on the staff and connected actively with the reciprocating bar of the cutter mechanism, substantially as described for the purpose set forth. 2nd. In a lawn trimmer, a frame plate provided with a front bar, and a finger bar having the fingers thereof formed integral one with the other and united to the front bar of said frame plate, whereby the bar of the frame plate is adapted to serve as the ledger plate of the cutter apparatus, in combination with a staff joined to the frame plate, an operating device on said staff, and driving connections between the operating device and the reciprocating bar of the cutter apparatus, substantially as described. 3rd. In a lawn trimmer, the combination with a cutter apparatus and a driving shaft therefor, of a crank arm fast with said shaft and provided with a ball-shaped wrist pin, a lever connected with the cutter bar and having a ball-shaped head at its rear end, and a pitman provided with sockets that receive the wrist pin and head of the connecting lever, substantially as described. 4th. A lawn trimmer consisting of a frame plate having the carrying wheels at its rear end and supporting a cutter apparatus at the front end, a staff joined to the frame plate, a connecting lever fulcrumed on the frame plate and pivoted to the reciprocating bar of the cutter

apparatus and provided at its heel with a ball-shaped head, a shaft journaled on the staff, a crank arm fast with said shaft and provided with a ball-shaped wrist pin, a pitman provided at its opposite ends with ball sockets arranged to open through opposite faces of said pitman and adapted to receive the ball-shaped head of the connecting lever and the ball-shaped wrist pin of the crank arm respectively, and an operating device mounted on the staff and connected to the driving shaft, substantially as described. 5th. A lawn trimmer comprising a frame plate having the cutter apparatus at its front edge, a staff joined to the frame at its rear edge, an angular brace fastened firmly to the staff and the frame plate on the upper side thereof, an arched shoe fastened to the lower side of the staff and the frame plate, a driving shaft journaled on the staff and having a crank arm disposed within the arched shoe, an operating device mounted on the staff and geared to the driving shaft, a lever fulcrumed on the plate and pivoted to the driving shaft, a lever fulcrumed on the plate and pivoted to the cutter bar, and a pitman connected directly to the lever and crank arm, substantially as described. 6th. A lawn trimmer comprising a frame plate supporting a cutter apparatus, a staff joined to said frame plate, a driving shaft journaled on the staff and having operative connections with the cutter bar of said cutter apparatus, a guide bracket fastened to the staff and having its flange provided with a T-shaped notch, a guide plate fastened to the staff on the opposite side from the bracket and having in its free edge a T-shaped notched which is in alignment with a similarly-shaped notch of the bracket, a T-shaped rack bar slidably fitted in the notches of the bracket and plate and geared to the driving shaft, and an operating handle fulcrumed on the staff and pivoted to the rack bar, substantially as described. 7th. In a device for trimming lawns, a single horizontal frame plate provided at its front edge with a finger bar, a single upright staff fastened securely to the frame plate near the rear edge thereof, carrying wheels journaled on said frame plate at its sides and in rear of the finger bar, an arched shoe united firmly to the staff and the frame plate and arranged in the horizontal plane of the carrying wheel, combined with a cutter bar fitted operatively to the finger bar, a shaft journaled on the staff and having a crank disposed within the space of the arched shoe, and lever and link connections between the crank of the shaft and the cutter bar, substantially as described. 8th. In a device for trimming lawns, a horizontal frame plate provided at its sides with the rollers, a staff fixed to the frame plate and an arched shoe fixed to the plate and staff, combined with a shaft journaled on the staff and having a crank which plays in the space between said arched shoe and the staff, a lever pivoted on the frame plate, a pitman connected to the lever and the crank of the shaft, and a cutter apparatus mounted on the frame plate and connected with the lever, substantially as described. 9th. In a device for trimming lawns, an inclined staff, a shaft journaled beneath the said shaft and provided at one end with a crank and at its opposite end with a gear pinion, a fixed guide attached to the staff, an arm fixed to the staff below the guide, a lever fulcrumed on said arm, and a rack bar pivoted to the lever and slidably fitted in the guide to engage with the gear pinion, in combination with a frame plate carrying a cutter apparatus, and operative connections between the shaft and the movable element of the cutter apparatus. 10th. In a device for trimming lawns, a horizontal frame plate, an inclined staff joined thereto, and an arched shoe having its ends secured firmly to the frame plate and the staff and arranged for its heel to lie on a plane below the lower face of said frame plate, in combination with a cutter apparatus on said frame plate, a shaft journaled on the staff, and connections between said shaft and the movable element of the cutter apparatus, substantially as described.

**No. 63,964. Harrow Teeth Fastening.**  
(Attache de dents de rateaux.)

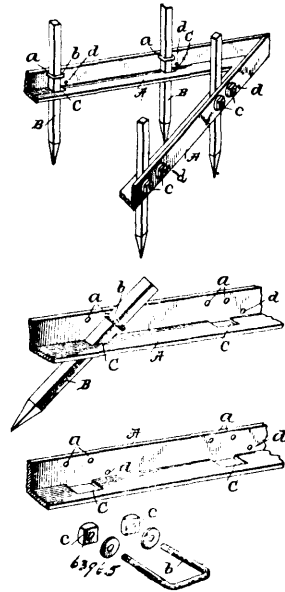


John F. Brown, Rural Retreat, Virginia, U.S.A., 26th September, 1899; 6 years. (Filed 4th May, 1899.)

Claim.—1st. In a harrow, the combination in an angle iron tooth beam, of an elongated opening in the lower flange thereof, and a

series of apertures in the upper flange thereof, for engagement with a clip embracing the tooth in its various adjustments. 2nd. The combination of a harrow frame formed of an L-shaped angle iron, the horizontal portion of the angle iron having a vertical tooth opening, the vertical portion of the angle iron having two openings in a horizontal line and a third opening in a different plane therefrom, and a U-shaped bolt adapted to be placed through the said openings for clamping the tooth in either a vertical or inclined position, substantially as described. 3rd. The combination with a harrow frame consisting of an L-shaped angle iron having the horizontal portion at its lower edge, the horizontal portion of the angle iron provided with an elongated opening, the vertical portion of the angle iron provided with two bolt openings in a horizontal line and above the said opening in the said horizontal portion of the angle iron, and a third bolt opening situated in a plane below the said openings and in front thereof, of a bolt adapted to enter said openings and embrace a tooth, substantially as described. 4th. The combination of a harrow frame consisting of an L-shaped angle iron, the horizontal portion thereof provided with an elongated opening, two openings in the vertical portion of the angle iron and in a horizontal line above the opening in the horizontal portion thereof, and a third bolt opening in a line below the two said openings and in front thereof and also at a point in front of the elongated opening in the horizontal portion of the angle iron, and a U-shaped bolt adapted to span the tooth, the parts co-operating, as and for the purpose described. 5th. In a harrow, the combination in an angle iron tooth beam, of an elongated opening in the horizontal flange thereof, and a series of apertures in the vertical flange thereof, and a bolt adapted to embrace the tooth and pass through the said openings for holding the tooth in the desired adjustment, substantially as described.

**No. 63,965. Harrows. (Herc.)**

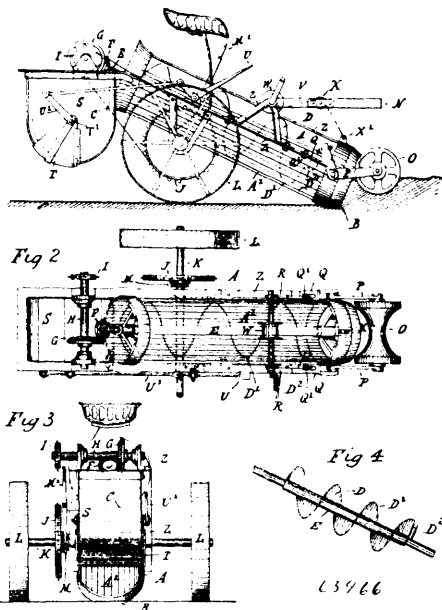


John H. Brown, Rural Retreat, Virginia, U.S.A., 26th September, 1899; 6 years. (Filed 4th May, 1899.)

Claim.—1st. A harrow, comprising a plurality of V-shaped sections adapted to be used as separate single harrows, the point of each section having a connecting draft member and the rear adjacent ends of each harrow having laterally projecting plates with vertical engaging portions, the vertical engaging portions provided with transverse registering openings, detachable fastenings for securing the plates to the sections, and detachable belts adapted to be passed through the said openings in the said vertical portion of the plates whereby each portion is adapted to be used as a single harrow, by detaching the said plates, or as a combination harrow by connecting the draft members and the detachable plates, substantially as described. 2nd. A harrow, comprising a plurality of V-shaped sections adapted for independent use as separate harrows, the adjacent rear ends of the said harrows having separate detachable inwardly extending plates, the inner adjacent ends of the plates having engaging vertical portions with two or more registering transverse openings, and detachable bolts adapted to be passed through the said openings, whereby the plates are detachable for the purpose of using the harrows as single harrows, and are attachable for the purpose of making a plurality of harrows which are rigidly connected at their rear ends to increase the lift or weight of the harrow, substantially as described. 3rd. A harrow, consisting of L-shaped angle irons, the said angle irons formed in V-form, blocks situated at the rear end of these V-harrows, transverse connecting

bars secured on top of the blocks for the purpose described, the blocks having bolt openings, and bolts passing through the said transverse bars and the bolt openings of the blocks, substantially as and for the purpose described. 4th. An improved harrow, consisting of a plurality of V-shaped sections having transverse bars connecting their rear separated ends, the sections connected to form a continuous front and a continuous rear row of sections, the front and rear rows of sections provided with laterally extending and engaging ears or members, the said ears or members provided with means for making the connections rigid, whereby two parallel rigid connections are provided one through the centre of the harrow and one at the rear end thereof, whereby the heft of the front row as well as the rear row can be obtained for breaking and cutting turfs or hard soil, substantially as described. 5th. A harrow, comprising a plurality of independent V-shaped sections arranged side by side, the separated rear ends of the sections having connecting bars resting on their upper sides, connecting members having horizontal portions overlapping the connecting bars and resting thereon and projecting vertical perforated portions, the side bars of the section, the connecting bars and the horizontal portions of the connecting members having registering bolt openings, and a detachable bolt passing through said openings and thus clamping all said members in position, substantially as described. 6th. A harrow, consisting of L-shaped angle irons, the said angle irons formed in a V-form, blocks situated at the rear ends of these V-shaped harrows, transverse connecting bars secured on top of the blocks for the purpose described, and a perforated projecting connecting member overlapping said block and connecting bar, and a clamping bolt passing through said members and serving to unite them, substantially as described. 7th. A harrow, consisting of a plurality of V-shaped harrows, the harrows being connected in two parallel rows making a rear and a front row of V-shaped sections, the sections of the rear row having a flexible connection one with the other at their rear ends, and the harrows of the rear row having a flexible connection at their front ends with the rear ends of each of the corresponding front sections, forming two connecting lines extending entirely across the harrow, substantially as described.

**No. 63,966. Potato Digger. (Arrache-patates.)**



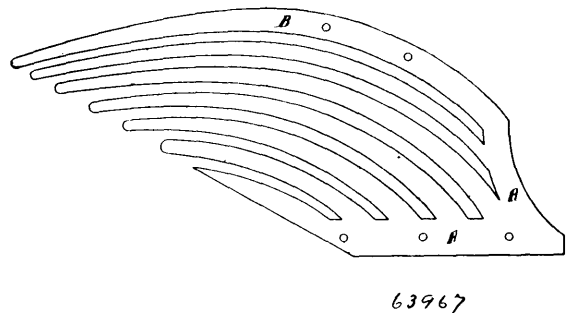
David Buchanan, Auburn, Victoria, Australia, 26th September, 1899; 6 years. (Filed 2nd May, 1899.)

*Claim.*—1st. In a potato digger the combination with an inclined curved riddle having at its low front end a mouth with a share or cutting edge, of a roller in front of and adjustably connected relatively to the said riddle, and a winch and connections therefrom to the machine front, all substantially as and for the purposes set forth. 2nd. In a potato digger the combination with an inclined curved riddle of a screw elevator within the same having an incurved rounded entering edge, and at its discharge end bevel gear operated by sprocket and chain mechanism whereby the said screw will by the turning of the traction wheels of the machine be revolved so as to carry potatoes or the like up the riddle at a comparatively rapid rate, substantially as and for the purposes set forth. 3d. In a potato digger the combination with a riddle and elevating screw, gear for rotating said screw by the forward motion of the machine, a clutch for connecting and disconnecting said gear, a roller wheel or wheels, in front of said riddle, connections between said roller wheel or wheels, and riddle for adjusting the cutting depth of the latter, and a lever or winch to lift the front of the machine off the ground, all

substantially as and for the purposes set forth. 4th. In a potato digger having an inclined curved riddle having an elevating screw, having an incurved rounded entering edge, said screw being adapted to push potatoes up the said riddle and dirt and hauls through the bars thereof, the combination therewith of a box or potato receptacle S, having a door T, with pivot T', and connections U', to handle U, whereby the door can be opened and the box emptied at will, and whereby the door of said box will close automatically when the lever or handle U is released, substantially as set forth.

**No. 63,967. Plough Mould Board.**

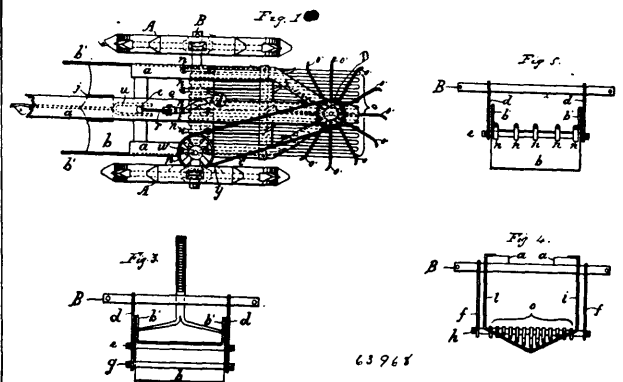
(Moule pour les oreilles des charrues.)



William Kidd Elder, Auckland, New Zealand, 26th September, 1899; 6 years. (Filed 15th May, 1899.)

*Claim.*—A mould board for attachment to a plough made of tines stamped or cut out of a solid piece or made in separate pieces both shaped and curved to suit the run of the land in which the plough is to work, substantially as described and as illustrated by the accompanying drawing.

**No. 63,968. Potato Digger. (Scarificateur à patates.)**

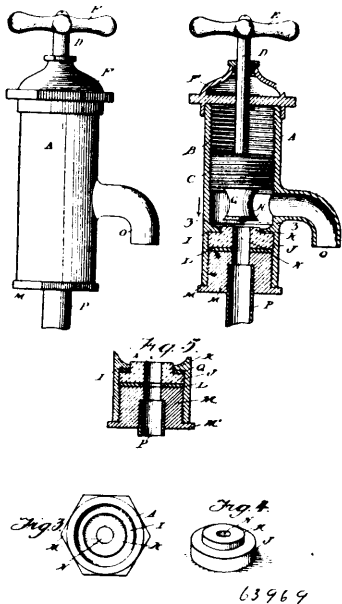


Lockhart Leslie Fuller, Truro, Nova Scotia, Canada, 26th September, 1899; 6 years. (Filed 10th May, 1899.)

*Claim.*—1st. In a potato digging machine an adjustable metal scoop having a movable point, and sides projecting forward and upward, and bars riveted to the rear end, substantially as and for the purpose hereinbefore set forth and described. 2nd. In a potato digging machine a revolving weed and top wheel having radial arms with a rising and falling motion during a part of their circuit, substantially as and for the purpose hereinbefore set forth and described. 3rd. In a potato digging machine an adjustable scoop, having a movable point and sides projecting forward and upward, and bars riveted to the rear end in combination with the bar c, the stays d, the bar g, the forked bar c, the draw bar u, the pivoted lug v, the cog wheel r, the lever q, and the locking lever k, substantially as and for the purpose hereinbefore set forth and described. 4th. In a potato digging machine an adjustable metal scoop having movable point and sides projecting forward and upward, and a revolving weed wheel having radial arms in combination with the spindle L, the frame a, the sprocket wheel D, the sprocket chain C, the sprocket wheel a, the bevel gear wheel x, the bevel gear wheel y, and the driving wheel A, substantially as and for the purpose hereinbefore set forth and described. 5th. In a potato digging machine a metal scoop having a movable point, and sides projecting forward and upward, and bars riveted to its rear end, a weed wheel driven by gearing from the driving wheel A, and having revolving radial arms, in combination with the step m', the serrated band G, the standard H, H, H, H, the riddle o, the rod n, the stays f, f, the hanger, i, i, and the frame a, substantially as and for the purpose hereinbefore set forth and described.



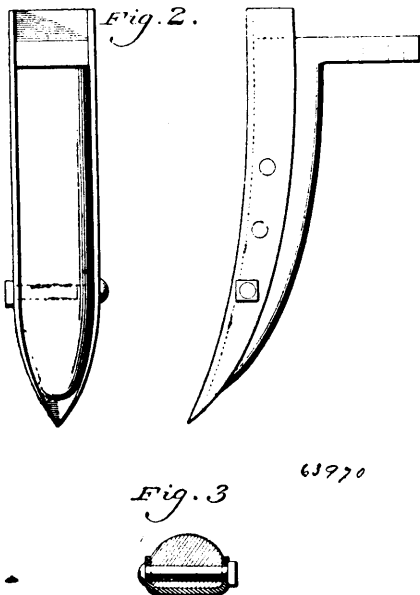
**No. 63,969. Cock. (Robinet.)**



Morgan Byrne, Staunton, Virginia, U.S.A., 20th September, 1899; 6 years. (Filed 9th May, 1899.)

*Claim*—In combination with the main body of a cock or faucet provided with a screw-impelled valve head, having an elastic washer on the lower end thereof, of an annular flange formed within the main body below the valve head, a valve seat provided with a main body to fit the body of the cock or faucet and a boss to fit the opening in the annular flange, and an elastic washer resting between the main body of the valve seat and the lower side of the annular flange, an elastic washer fitted in the main body of the cock or faucet below the valve seat, and a screw plug threaded into the main body below the elastic washer, the screw plug elastic washer and valve seat being centrally perforated to provide an inlet passage, substantially as described.

**No. 63,970. Cultivator Teeth. (Dents de cultivateur.)**

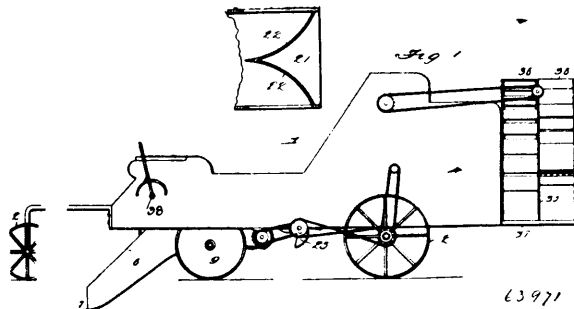


William Thompson Young, Vineland, New Jersey, U.S.A., 26th September, 1899; 6 years. (Filed 8th May, 1899.)

*Claim*.—1st. The combination with the post of a cultivator, of a tooth removably secured thereto and consisting of a body portion, and lateral flanges extending rearwardly from the side edges thereof, and means passing through said flanges and post for fastening said parts. 2nd. The combination with the post of a cultivator, of a longitudinally adjustable tooth secured thereto, said tooth comprising a body portion, and lateral flanges extending rearwardly from the side edges thereof, said body portion and

flanges fitting against faces of said post. 3rd. The combination with an upright post, of a longitudinally adjustable blade secured to the front side thereof, said blade comprising a body portion and lateral flanges extending rearwardly from the side edges thereof, said body portion and post being equal in width and said blade and post being of correlative contour to provide a firm bearing, and securing devices passing transversely through said flanges and post.

**No. 63,971. Potato Digger. (Scarificateur à patates.)**



Delphis Denis, St. Benoit, Quebec, Canada, 26th September, 1899; 6 years. (Filed 15th May, 1899.)

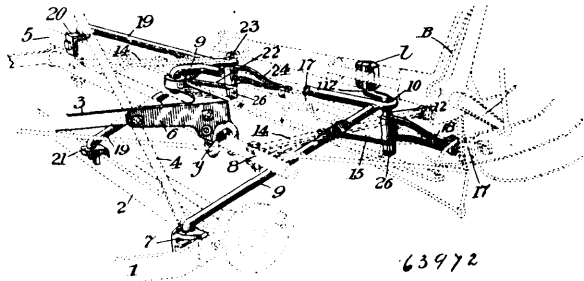
*Claim*.—1st. A potato digger, comprising a frame, a digger nose removably secured within said frame, said digger nose being adjustable vertically, means mounted within said frame for automatically removing the stalks from the potatoes, a vibrating cleanser and assorter mounted within said frame, means located at the rear end of said frame for delivering the assorted potatoes to proper receptacles therefor, conveyors located within said frame for automatically carrying the potatoes therethrough, and means operated by the forward movement of the digger for imparting movement to the stalk-removing means and to said conveyors, substantially as described. 2nd. A potato digger, comprising a frame, a digger nose removably mounted therein, said digger nose being adjustable vertically within said frame, a vibrating cleanser and assorter mounted within said frame, means for removing the stalks from the potatoes, operated automatically, said means being located between the digger nose and said vibrating cleanser and assorter, means for independently discharging said assorted potatoes, perforated conveyors located within said frame, said conveyors being adapted to carry the potatoes from said digger nose to said independent receptacles, and means for imparting movement to said stalk-removing means and the conveyors, said means being operated by the forward movement of the digger, substantially as described. 3rd. A digger nose for potato diggers, comprising the nose, means for regulating the depth to which said nose can enter the ground, a carrier or conveyor mounted to receive the potatoes from said digger nose, means automatically operated for removing the stalks from the potatoes as they are received from the nose, and means for imparting movement to said conveyor and to said stalk-removing means, substantially as described. 4th. A digger nose, comprising a nose proper, a conveyor located in rear thereof, said conveyor being adapted to receive the material from said nose, means automatically operated for removing the stalks from the potatoes as they are passed over said conveyor, said means being arranged to deliver the stalks at a point away from the delivery end of said conveyor, and means for imparting movement to said conveyor and to said stalk removing means, substantially as described. 5th. A stalk remover for potato diggers, comprising a series of rolls, having a rotary movement, said rolls moving at a point above the path of movement of the dug potatoes, and a delivery tube mounted to receive the stalks as they pass from said rolls, said tube being adapted to deliver the stalks at a point independent from the delivery portion of the potato conveying means, substantially as described. 6th. A bucket for conveyors, comprising end pieces, a concave perforated front and bottom piece, and a series of bars extending between said end pieces, said bars being located at the rear of the bucket, substantially as described.

**No. 63,972. Harvester and Binder. (Moissonneuse et lieuse.)**

John Fletcher Stewart and Charles Alfred Anderson Rand, both of Chicago, Illinois, U.S.A., 26th September, 1899; 6 years. (Filed 19th May, 1899.)

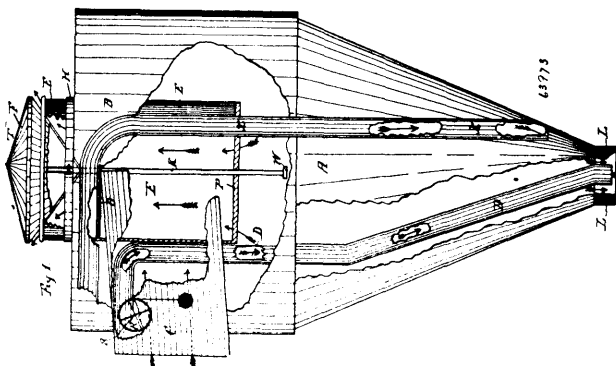
*Claim*.—1st. In a self binder, the combination with the harvester frame, of a swinging crane pivoted at its inner end to the frame, and a binder frame or casting connected near its heavier end to and supported by the outer end of the crane. 2nd. In a self binder the combination with the harvester frame, of a swinging crane pivoted at its inner end to the frame, a binder frame or casting connected with and supported by the outer end of the crane, and a connection between the crane and the binder casting whereby the latter is allowed to move in a straight line as the crane swings. 3rd. In a self binder, the combination with the harvester frame, of a swinging

crane pivoted at its inner end to the frame, a binder frame or casting pivoted with and supported by the outer end of the crane,



and a cranked hinge pin interposed between the casting of the crane and pivotally connected with each. 4th. In a self binder, the combination with a base sill of the frame, and a horizontal cross bar of the elevator frame, of a bifurcated crane, the inner ends of whose arms are pivoted to said sill and bar respectively, a binder frame or casting, and a cranked hinge pin journalled in the outer end of the crane, and pivotally connected to the binder casting near its heavier end, whereby the weight of the binder is supported by the crane and it is allowed to move in a straight line as the crane swings. 5th. In a self binder, the combination with the harvester frame, of a bundle carrier, and a pair of parallel swinging cranes pivoted at their inner ends to and supported by their outer ends. 6th. In a self binder, the combination with a sill of the base frame, and a cross bar of the elevator frame, of a pair of bifurcated swinging cranes, the upper and lower arms of said cranes being pivoted respectively in the sill and cross bar, and a bundle carrier secured to and supported by the outer ends of the arms. 7th. In a self binder, the combination with the harvester frame, of a swinging crane pivoted at its inner end to the frame near its front corner, a binder frame or casting pivotally connected with and supported by the outer end of the crane, a similar crane pivoted at its inner end to the harvester frame near the rear end, and a bundle carrier connected to and supported by the outer ends of said cranes. 8th. In a self binder, the combination with the harvester frame, of a swinging crane pivoted at its inner end near the front corner of the frame, a similar crane likewise pivoted to the frame near the rear, a binder frame or casting, a cranked hinge pin journalled in the outer end of the front crane and pivotally connected with the casting near its heavier end, bracket arms projecting outwardly from the ends of the cranes, and a bundle carrier secured to and supported by said arms. 9th. In a self binder, the combination of the sill and the cross bar 5 of the crane 9 whose bifurcated arms are pivoted to said sill and bar, the binder frame or casting, and the cranked hinge pin 12 pivotally connected to the casting and journalled in the outer end of the crane. 10th. In a self binder, the combination of the sill 1 and the cross bar 5, of the crane 19 whose bifurcated arms are pivoted to said sill and bar, the bracket arm 24 secured to a vertical pin at the end of the crane, and a bundle carrier the end of which is secured to and supported by the arm. 11th. In a self binder, the combination of the swinging crane, the binder frame or casting, the cranked hinge pin 12 journalled in the outer end of the crane and pivotally connected to the casting, the bracket arm 18 secured to the outer end of the crane, and a bundle carrier the front end of which is secured to and supported by the arm.

No. 63,973. Dust Collector. (Aspirateur de poussiere.)

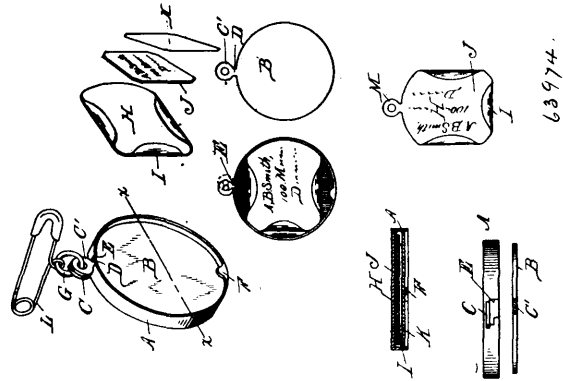


John D. McEachren, Galt, Ontario, Canada, 26th September, 1899; 6 years. (Filed 20th May, 1899.)

Claim.—1st. In a dust collector, the combination of a dust separator, consisting of the cylindrical chamber B, the conical chamber A, outlets L and E, and inlet C, or their equivalents, of the tube D, as and for the purposes described. 2nd. In a dust collector, the combination with the cylindrical chamber B, the conical chamber

A, the outlets L and E, and inlet C, or their equivalents, of the tube X, as and for the purposes described. 3rd. In a dust collector, the combination with a dust separator consisting of the cylindrical chamber B, the conical chamber A, outlets L and E, inlet C, adjustable ring or collar H and tube E, of the float F, as and for the purposes described. 4th. In a dust collector the combination of the tube E, and float F, with the adjustable guide bar K, as and for the purposes described. 5th. In a dust collector, the combination of the float F, and adjustable guide bar K, with the central supports or guides O and P, as and for the purposes described. 6th. In a dust collector, the combination of a float F, and adjustable guide K, with the removable lid of the float, as and for the purposes described.

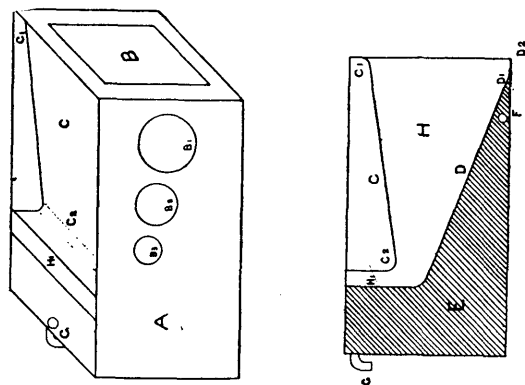
No. 63,974. Identifying Device. (Appareil à identifier.)



George W. Busch, Detroit, Michigan, U.S.A., 26th September, 1899; 6 years. (Filed 5th April, 1899.)

Claim.—1st. In an identification tablet, the combination of an indestructible outer casing provided with a cover removably secured thereto and a tablet composed of asbestos paper secured within said casing between a back of a sheet metal and a covering of mica. 2nd. In an identification tablet, the combination of the outer casing A, provided with an open slot E, a lug F, the cover B, secured therein, the apertured ears C C', on the casing and cover and a tablet composed of the metal backing A, formed with lugs I, the asbestos sheet J, and sheet of mica B, the parts being arranged substantially as shown and described. 3rd. In an identification tablet, the combination of an outer casing provided with a slotted wall, a lug, and an apertured ear, a tablet within said casing, and a cover therefor provided with an apertured ear and adapted to be held in the casing by the said lug and a retaining shoulder on said slotted wall with said apertures in alignment, substantially as de-cribed. 4th. In an identification tablet, the combination of a casing, a tablet therein comprising the metal backing provided with holding lugs, the asbestos sheet, and the mica sheet held on said backing by said lugs, and a cover secured in said casing, substantially as described.

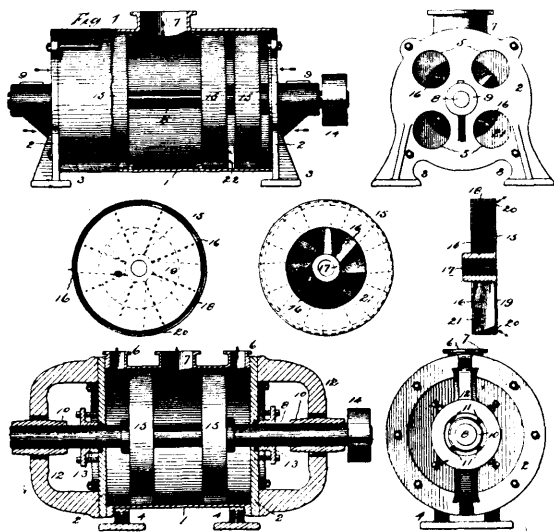
No. 63,975. Milk Cooler and Aerator. (Garde-lait et aérateur.)



Warren Flynn, Tilsonburg, Ontario, Canada, 26th September, 1899; 6 years. (Filed 8th April, 1899.)

Claim.—1st. The combination in the apparatus described of the case A, the shelf C with the air space H, the up-take H', and the shelf D, substantially as and for the purposes described. 2nd. The combination in the apparatus described of the case A, the shelf C, the air space H, the up-take H', the shelf D, and the ice or water chamber E, substantially and for the purpose as described. 3rd. The combination in the apparatus described of the case A, the shelf C, perforated at the base as described, with the air space H, the up-take H', the shelf D, the ice or water chamber E, and the perforations D', substantially as and for the purpose described.

**No. 63,976. Rotary Pump.** (*Pompe rotatoire.*)



63 976

Alfred Wells Case and Lawrence Wells Case, both of Highland Park, Connecticut, U.S.A., 26th September, 1899; 6 years. (Filed 9th December, 1898.)

*Claim.*—1st. A fan for a rotary pump, having angularly arranged radiating blades that at their inner ends are attached to a cylindrical hub, that at their outer ends are connected with a peripheral enclosing band, and that at their back edges are joined by a disc that is nearly as large in diameter as the diameter of the enclosing band, whereby the area of space for the flow of fluid to the blades is much larger than the area of space for the flow of fluid from the blades. 2nd. A fan for a rotary pump having angularly arranged radiating blades entirely enclosed except for an inlet opening in front near the hub and for a narrow discharge opening at the back near the periphery of the fan. 3rd. A fan for a rotary pump, having angularly arranged radiating blades that have their inner ends connected with a hub, their outer ends joined by a band, and their back edges, except near the periphery, joined by a disc. 4th. A rotary pump, having a shell with an inlet and an outlet, a shaft supported by the shell, and a fan with radiating blades carried by the shaft, said fan having the spaces between the blades closed around the outer ends of the blades, closed in front from the outer ends of the blades some distance inward, and closed in back from the hub outward nearly to the outer ends of the blades, so that fluid enters between the blades near the hub and passes out from between the blades near the periphery of the fan. 5th. A rotary pump, having a shell with inlets and an outlet, a shaft supported by the shell, fans with radiating blades carried by the shaft with their faces in opposite directions, said fans having the spaces between the blades closed around the outer ends of the blades and closed in back from the hub outward nearly to the outer ends of the blades so that fluid enters between the blades from the front and passes out from between the blades at the back near the peripheries of the fans.

**No. 63,977. Process of Producing Metals, etc.**

(*Procédé pour la production des métaux.*)

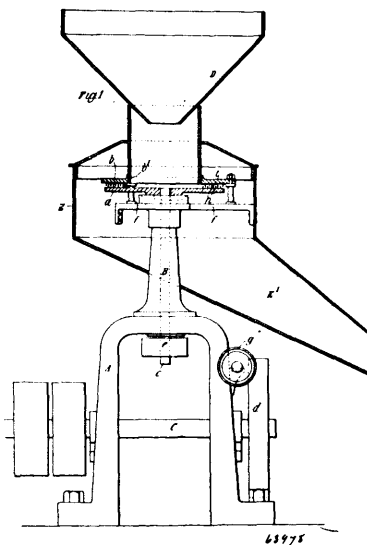
Dr. Hans Goldsmith, Essen on the Ruhr, Rine, German Empire, 26th September, 1899; 6 years. (Filed 17th September, 1898.)

*Claim.*—1st. A process for heating and melting metals and other bodies, characterized by a mixture of aluminium, magnesium carbides on the one hand, and oxides, sulphides, halogenides or salts on the other hand, being brought to re-action after or before the object to be heated has been brought in contact with the re-action mass, substantially as and for the purpose hereinbefore set forth. 2nd. A process for the production of melted metals, or alloys of the same, with metals or metalloids, characterized by an oxide, sulphide, halogenide or salt, or of several of these compounds of the metals to be produced, being mixed with powdered aluminium, magnesium, carbides, or several of these bodies, the mixture being brought to re-action, whereby the metal separated by the re-action is melted by the heat released during the re-action, substantially as and for the purpose hereinbefore set forth. 3rd. A process for the production of corundum, capable of employment for grinding and boring purposes, characterized by a mixture of powdered aluminium, being brought to re-action by heating with an oxide, whereby the aluminium combines with the oxygen to aluminium oxide the latter becoming melted by the freed heat during the re-action, substantially as and for the purpose set forth. 4th. A process for the introduction of the re-action between aluminium, magnesium, and carbides, on

the one hand, and oxides, sulphides, halogenides and salts on the other hand, in which the re-action mixture is brought at one point to re-action, whereby the re-action mixture spreads over the remaining portion of the mass, in consequence of the release of heat, substantially as and for the purpose hereinbefore set forth. 5th. A modification of the introductory process of the re-action between aluminium, magnesium and carbides, on the one hand, and oxides, sulphides, halogenides and salts on the other hand, in which firstly a small quantity of the mass is brought to re-action by heating, the said re-action being continued by further addition of re-action mass without the further conveying of heat, substantially as and for the purpose hereinbefore set forth. 6th. A modification of the introductory process of the re-action between aluminium, magnesium and carbides on the one hand, and oxides, sulphides, halogenides and salts on the other hand, more especially for the production of alloys, characterized by a highly heated metal bath or a highly heated solid or rigid metal surface being brought into contact with the said re-action mixture, whereby the metal separated during the re-action combines with the metal of the bath, or is introduced into the highly heated metal surface to the method of cementing, substantially as and for the purpose set forth.

**No. 63,978. Chopping and Cutting Machine.**

(*Machine à hacher.*)

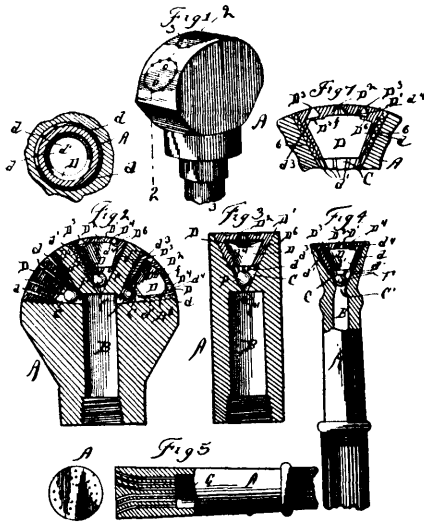


James Mecredy, 1 Brick Court, Temple, London, England, 26th September, 1899; 6 years. (Filed 2nd March, 1899.)

*Claim.*—1st. In a chopping or cutting machine, the combination of two series of cutters, each series comprising several rows of cutters, and the said two series being relatively movable, and means for projecting the substance to be chopped between said cutters, substantially as specified. 2nd. In a chopping or cutting machine, the combination of two series of vertically arranged cutters, each series comprising several concentric circular rows of cutters and each of the rows of one series being disposed between two adjacent rows of the other series, means for causing one series to be moved relatively to the other and for projecting the substance to be chopped between the cutters of each row and series, substantially as specified. 3rd. In a chopping or cutting machine, the combination of a fixed plate provided with cutters in concentric circular rows, a table provided with cutters arranged in concentric circular rows each of which is adapted to travel between two adjacent rows of cutters on the fixed plate, means for guiding the substance to be chopped onto the table, and means for rotating said table so as to cause the series of cutters thereon to travel past the cutters on the fixed plate and also to cause the substance to be projected by centrifugal action between the cutters of each series, substantially as specified. 4th. In a chopping or cutting machine, the combination of a fixed circular plate having series of cutters on its under surface, a rotary table below such plate having series of cutters working in conjunction with the cutters on the fixed plate, a hopper for guiding the substance to be chopped through the aperture in the annular plate onto the rotary table, means for rotating said table so as to operate the cutters thereon

and to project the substance between the teeth of each series, and a chute for guiding the chopped substance to a receiver, substantially as described.

**No. 63,979. Nozzle.** (*Lance de boyau.*)



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Arthur W. Joy, Bangor, Maine, U.S.A., 26th September, 1899; 6 years. (Filed 8th February, 1899.)

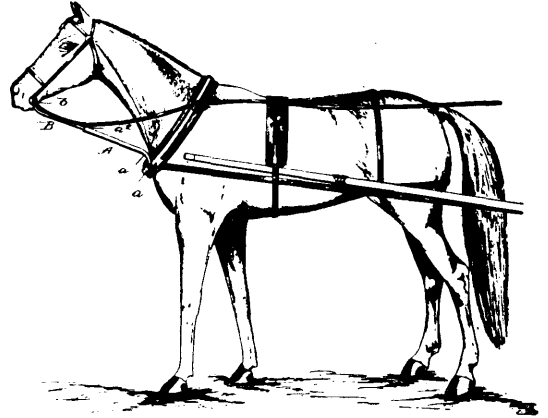
*Claim.*—1st. The nozzle herein described consisting of the body having a socket, the hollow conical head secured in said socket and having its outer side grooved, forming waterways leading to the outer side of the body, and having its end plate provided with an outlet countersunk at its inner end, the walls of such countersink being grooved forming water ways, and the rounded valve operating in such countersink, all substantially as and for the purposes set forth. 2nd. A nozzle, substantially as described, comprising a body having a socket, a hollow head fitted in said socket and provided in its outer or end plate with outlets countersunk at their inner ends and the plates partially covering the inner ends of such countersunk ends, substantially as shown. 3rd. The nozzle herein described, comprising the body having a socket and a hollow head fitted therein and having water outlets and the frame secured to said body and adapted to retain the hollow head in the socket, substantially as shown. 4th. In a nozzle the combination of the body having sockets and perforated hollow heads fitted therein, and the frame held to said body and having bars extending over the said heads and tapered, substantially as shown and described. 5th. A nozzle composed of the body having sockets, the hollow heads fitted in said sockets, and the frame hinged at one end to the body and having tapered bars extending across the hollow heads, substantially as shown and described. 6th. The improved nozzle herein described, consisting of the body having a chamber and a plurality of sockets in communication therewith, the hollow conical heads held in said sockets and provided in their outer sides with grooves forming waterways or channels and having its end plate provided with a central outlet countersunk at its inner end, and having its walls grooved forming waterways or channels, and the rounded valve operating therein, and also having the outlets countersunk at their ends and partially covered at such end, substantially as shown and described. 7th. A nozzle comprising the body having a socket, grooves being formed between said socket and head forming water outlets leading alongside said head, substantially as described. 8th. A nozzle, comprising the body, provided with the outlets and the frame extending from side to side of the body across said outlets and arranged to be impinged upon by the water discharged through said outlets, substantially as described. 9th. A nozzle, comprising a body having a socket and a frame secured to the body and extended across the head whereby to retain the same in the socket, substantially as described.

**No. 63,980. Harness.** (*Harnais.*)

David Holford, Birtle, Manitoba, Canada, 26th September, 1899; 6 years. (Filed 4th April, 1899.)

*Claim.*—1st. A harness attachment constructed of a frame extending from the hames to the bridle and provided with a transverse bar adapted to come in contact with the muzzle of the horse, substantially as described. 2nd. A harness attachment constructed of two rigid rods having at one end means for attachment to the hames and tubular at the opposite ends, a yoke frame having two

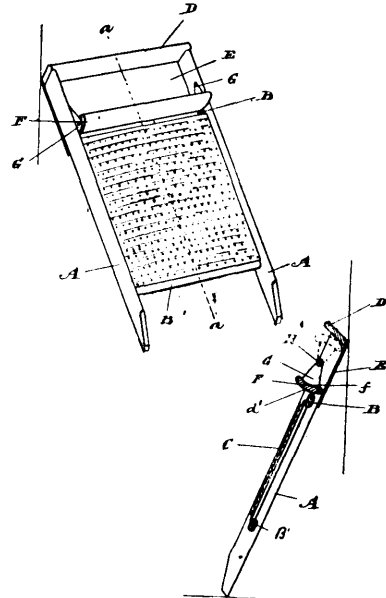
rigid arms adapted to be adjusted in the tubular portion of the said rods, means for fastening the said arms in their adjusted position, a



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connecting bar between said arms, said arms terminating in upwardly curved ends, and means for attaching said ends to the bridle or bit, substantially as described.

**No. 63,981. Washboard.** (*Planche à laver.*)



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George C. Taylor, Toronto, Ontario, Canada, 26th September, 1899; 6 years. (Filed 5th April, 1899.)

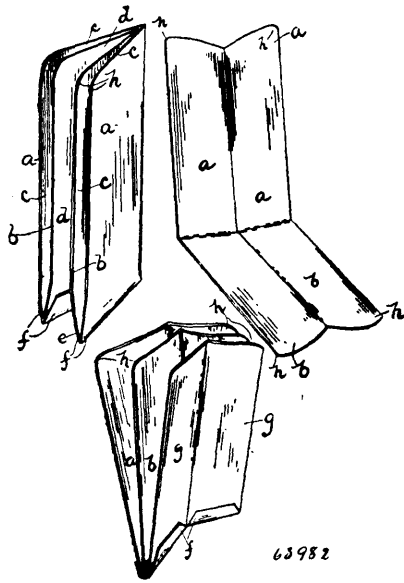
*Claim.*—A washboard, embracing in its construction a washboard frame, consisting of two side bars, head piece, cross bars and brand board, a projector provided with arms pivotally connected to the side bars intermediate the upper cross bar and head piece, and adapted to swing either into a position contiguous to the upper cross bar to serve as a soap box, or into a position contiguous to the head piece, substantially as specified.

**No. 63,982. Pocket Book.** (*Livre de poche.*)

George Albert Wieland, Duluth, Minnesota, U.S.A., 26th September, 1899; 6 years. (Filed 22nd March, 1899.)

*Claim.*—1st. As a new article of manufacture, a pocket book formed of stiff paper, the said paper being folded twice, the said pocket book comprising an inner and an outer sheet connected with each other at one end edge only and forming two outer pockets and an intermediate or central space or pocket, the sheets maintaining their shape and their folded position by the stiffness of the material, the outer pockets being open at the front and one end and closed at the opposite end, the central space or pocket being open at both ends and the front, and binding secured over the creased portion to receive the same and serve as a hinge, substantially as described. 2nd. As a new article of manufacture, an advertising pocket book formed of stiff paper adapted to receive advertise-

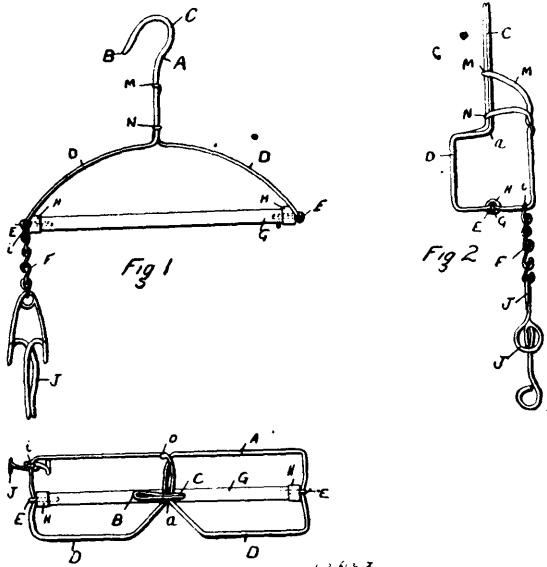
ments, the said paper being scored so as to enable it to be folded twice, the said pocket book comprising an inner and an outer sheet



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connected with each other at one edge only and forming two outer pockets and an intermediate or central space or pocket, the sheets maintaining their shape and their folded position by the stiffness of the material, the outer pockets being open at the front and one end and closed at the opposite end, the central space or pocket being open at both ends and the front and binding secured over the crossed portion to receive the same and serve as a hinge, and the outer corners of the several layers of the pocket book at the end where the pockets are open being rounded, substantially as described. 3rd. As an improved article of manufacture, a pocket book formed of stiff paper or other material comprising in its construction an inner and an outer sheet connected with each other at one edge only and another sheet secured to the first sheet along one edge only so that when the sheets are folded, as described, two outer pockets closed at bottom and open at the top and front and an inner space open at top, bottom and front and closed at rear, are secured, substantially as described.

**No. 63,983. Garment Hanger. (Porte-vêtement.)**



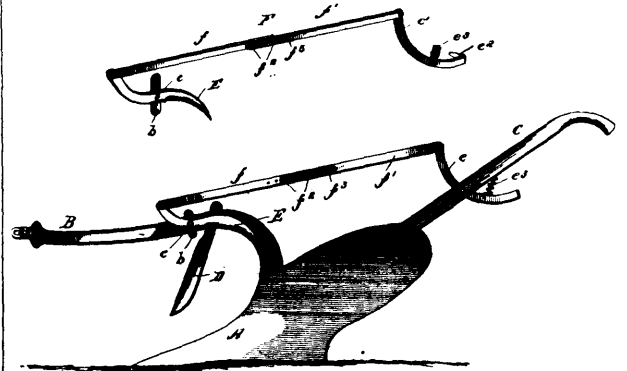
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Edward Sydney Ostell, Montreal, Quebec, 26th September, 1899; 6 years. (Filed 21st March, 1899.)

*Claim.*—1st. In a complete suit hanger, a wire A having the shape just described and united to eyelets E, that hold a cylindrical rod G, having ferrules H at its extremities, such as shown and described. 2nd. In a complete suit hanger, a wire A having

the shape just described, united to a chain I sliding freely on said wire, said chain bearing pincers J used to hold pants in position when on the rod, such as shown and described and set forth.

**No. 63,984. Plough. (Charrue.)**

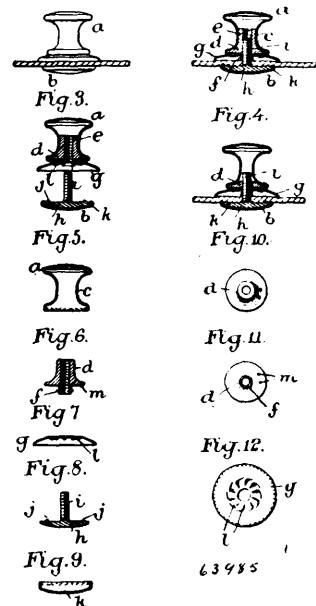


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Napoleon Louis Gobeille, St. Hyacinthe, Quebec, Canada, 26th September, 1899; 6 years. (Filed 11th April, 1899.)

*Claim.*—1st. An attachment for ploughs, comprising a cutter pivoted to the plough beam, a lever pivoted to the plough handle for operating said cutter and a connecting rod, substantially as described. 2nd. An attachment for ploughs, comprising a cutter pivoted to the plough beam, an operating lever pivoted to the handle, and an adjustable connecting rod, substantially as described. 3rd. An attachment for ploughs, comprising a cutter pivoted to the plough beam, a spring pressed operating lever pivoted to the plough handles, a foot piece secured to said lever, and a connecting rod, substantially as described. 4th. An attachment for ploughs, comprising a cutter pivoted to the plough beam, a spring pressed operating lever pivoted to the plough handles, a foot piece secured to said lever, and an adjustable connecting rod, substantially as described. 5th. An attachment for ploughs, comprising a cutter pivoted to the plough beam, a spring pressed, operating lever pivoted to the plough handles, a foot piece secured to said lever, and an adjustable connecting rod, said rod being constructed of two overlapping sections adapted to be secured in their adjusted position, substantially as described.

**No. 63,985. Button or Stud. (Bouton.)**



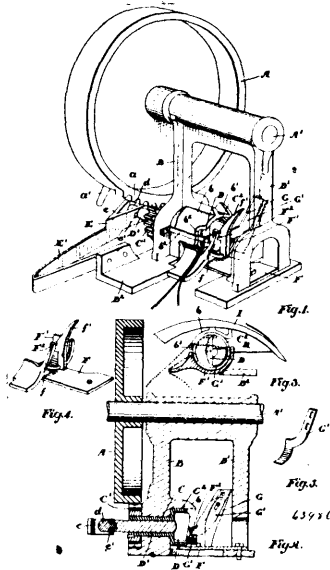
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George Washington Lee, Binghamton, New York, U.S.A., 26th September, 1899; 6 years. (Filed 15th April, 1899.)

*Claim.*—A separable button or stud comprising a base having a screw-threaded stem uprising therefrom, a head having a downwardly extended shank, a screw-threaded socket piece secured within the shank in position to receive the said stem, a washer loosely retained by the said socket piece, the said washer being provided with an annular series of teeth and the said socket piece being pro-

vided with one or more projections in position to engage the teeth and travel over the same as the head is screwed home, substantially as set forth.

**No. 63,986. Harvester Binder Cord Holder.**  
(*Porte-ficelle pour lieuses de moissonneuses*)

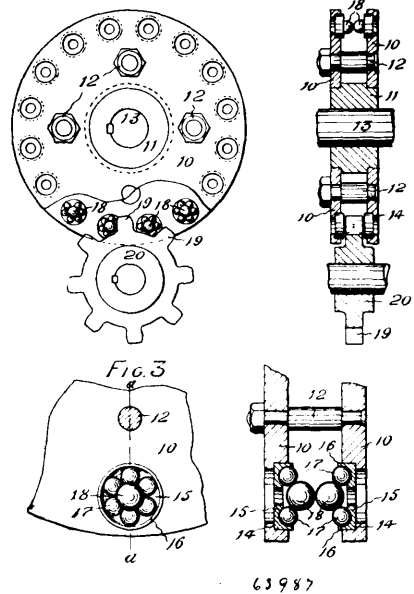


William Bennett, Sunderland, Ontario, Canada, 26th September, 1899; 6 years. (Filed 22nd April, 1899.)

*Claim.*—1st. In a cord holder for harvester binders, the combination with the discharge wheel and bearing standards for same, of a hollow stud suitably journaled in the lower portion of the standards, means for intermittently rotating same, a nib or projection extending out from the same, a concentric plate adapted to fit partially around the stud and to co-act with the nib, and a suitable guide for carrying the binding cord in the needle under the nib on each revolution, as and for the purpose specified. 2nd. In a cord holder for harvester binders, the combination with the discharge wheel and bearing standards for same, of a hollow stud suitably journaled in the lower portion of the standards, means for intermittently rotating same, a nib or projection extending out from the same, a concentric plate adapted to fit partially around the stud and to act with the nib, a suitable guide for carrying the binding cord in the needle under the nib on each revolution, and an internally extending arc-shaped spring designed to co-act with the nib and hold the binding cord between it and the nib during portion of the revolution of the stud, as and for the purpose specified. 3rd. In a cord holder for harvester binders, the combination with the discharge wheel and bearing standards for same, of a hollow stud suitably journaled in the lower portion of the standards, means for intermittently rotating same, a nib or projection extending out from the same, a concentric plate adapted to fit partially around the stud and to co-act with the nib, a suitable guide for carrying the binding cord in the needle under the nib on each revolution, an internally extending arc-shaped spring designed to co-act with the nib and hold the binding cord between it and the nib during portion of the revolution of the stud, and an external spring designed to co-act with the nib when it is substantially diametrically opposite the point where the binding cord is carried under it by the guides, as and for the purpose specified. 4th. In a cord holder for harvester binders, the combination with the discharge wheel and bearing standards for same, of a hollow stud suitably journaled in the lower portion of the standards, a nib or projection extending out from same, a concentric plate adapted to fit partially around the stud and to co-act with the nib, a suitable guide for carrying the binding cord in the needle under the nib on each revolution, a gear pinion on the opposite end of the stud, a segmental gear on the discharge wheel intermittently meshing with the same as the wheel rotates, as and for the purpose specified. 5th. In a cord holder for harvester binders, the combination with the discharge wheel and bearing standards for same, of a hollow stud suitably journaled in the lower portion of the standards, means for intermittently rotating same, a nib or projection extending out from the same, a concentric plate adapted to fit partially around the stud and to co-act with the nib, and a suitable guide for carrying the binding cord in the needle under the nib on each revolution, the diametrically arranged knife extending through the inner end of the hollow stud and having the spindle thereof extending through the stud and means for intermittently projecting the knife against the binding cord, as and for the purpose specified. 6th. In a cord holder for harvester binders, the combination with the discharge

wheel and bearing standards for same, of a hollow stud suitably journaled in the lower portion of the standards, means for intermittently rotating same, a nib or projection extending out from the same, a concentric plate adapted to fit partially around the stud and to co-act with the nib, a suitable guide for carrying the binding cord in the needle under the nib on each revolution, the diametrically arranged knife extending at the inner end of the hollow stud and having the spindle thereof extending through the stud, the bent spring secured to the bed plate and connected to the end of the knife spindle and having the inclined end extending out beyond the end of the spindle, and the pin in the discharge wheel designed to come in contact with such inclined end, as and for the purpose specified. 7th. In combination, the hollow stud and means for intermittently rotating the same, the nib or projection on the end of the stud, the journal bearing for the stud provided with a guide  $b^1$  and recess  $b$ , the plate  $F$  having the semi-cylindrical ends  $F^1$  the guiding fingers  $f$  and  $f^1$ , and the projection  $F^2$  on the finger  $f^1$ , and the spring  $G$  provided with a concentric arc-shaped end extending within the stud designed to co-act with the nib or projection  $H$ , as and for the purpose specified.

**No. 63,987. Driving Gear.** (*Appareil de mise en mouvement.*)



William Henry McCormick, New Westminster, British Columbia, Canada, 26th September, 1899; 6 years. (Filed 24th April, 1899.)

*Claim.*—1st. In a driving gear, in combination, a hub 11 mounted on a shaft 13, discs 10 integral with the hub and connected together at intervals by bolts 12, of discs 15, having annular seats therein for the reception of balls securely fixed in recesses around the inner sides and near the outer edges of the discs 10, said annular seats or tracks for the balls, being directly opposite and facing each other, balls 17 in such seats, the balls 18 lying on the balls 17 and contacting with each other, and a spur wheel or wheels 20 designed to engage said balls, substantially as specified. 2nd. In a gearing for bicycles and other mechanism of its class, having discs 10 fixed at a proper distance apart so that the spurs on an engaging wheel will pass therebetween, ball sockets 15 fixed round the inner edges of the discs 10, each having an annular track for balls, balls 17 in such annular track, and large balls 18 placed on the balls 17 and contacting with each other, whereby the balls 17 will be held in their positions, and rotatable engaging members will be provided for the engagement of spurs on a wheel to be driven, or a wheel driven as specified.

**No. 63,988. Double Harness.** (*Harnais double.*)

Donald McArthur, Manilla, Ontario, Canada, 26th September, 1899; 6 years. (Filed 24th April, 1899)

*Claim.*—1st. In a double harness, a breeching and a collar, in combination with a breast strap connected to the collar at each side and breeching straps each secured at one end to the breeching and at the other end to the breast strap, substantially as and for the purpose specified. 2nd. In a double harness, a breeching and a collar, in combination with a breast strap flexibly connected to the collar at each side and breeching straps each secured at one end to the breeching and at the other by a suitable flexible connection to the breast strap at a point about midway between the centre of the said strap and the end, substantially as and for the purpose specified. 3rd. In a double harness, the collar A and the breeching B, in combination with the breast strap C, comprising rings D, the

parts *a* and *b* flexibly connected to the sides of the collar and to the rings *D*, and the parts *c* connected at one end to one ring *d* and

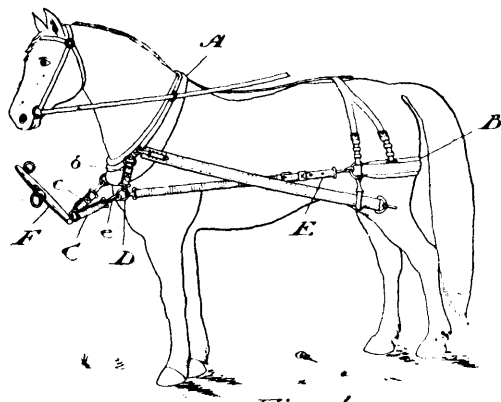
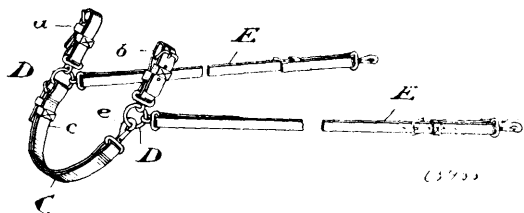
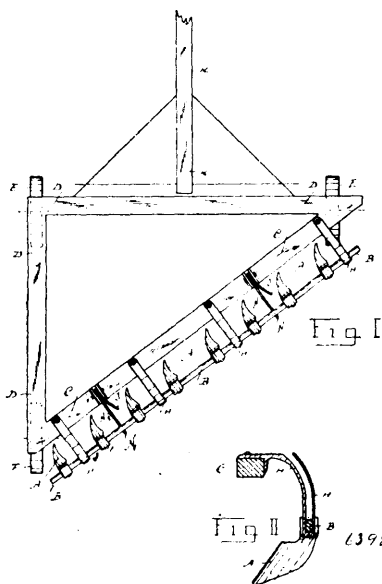


Fig. 1.



detachably connected at the other end to the other ring *D*, and the breeching straps *E*, each connected at one end to one of the rings *D*, and at the other to the breeching *B*, substantially as and for the purpose specified.

**No. 63,989. Gang Skimmer. (Cultivateur multiple.)**



Peter M. Bawtinimer, Ancaster, Ontario, Canada, 26th September, 1899; 6 years. (Filed 17th April, 1899.)

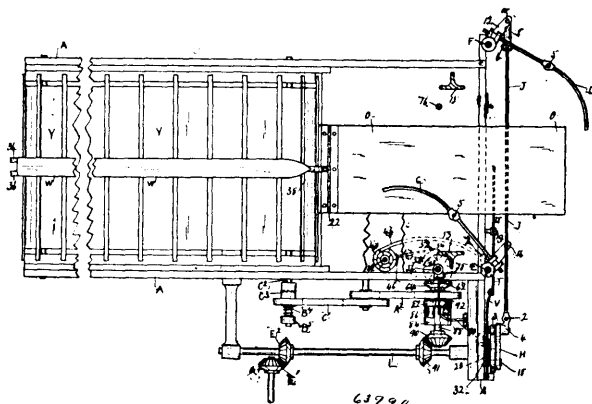
*Claim.*—1st. A combined gang skimmer of the character described, comprising a combination of skimmers arranged obliquely and in rotation on an oblique bar, as set forth. 2nd. A machine of the character described, comprising a series of skimmers arranged on an oblique bar which is capable of being attached to and adjusted on the rear oblique bar of the framework of the machine, as described. 3rd. A machine of the character described, comprising a series of skimmers arranged on an oblique bar in rotation and capable of adjustment and reversion on same, as specified.

**No. 63,990. Grain Shocking Machine.**

(Machine à engerber.)

Thomas Arthur Wooley, and Herbert Fox and Adam Zimmerman, all of Hamilton, Ontario, Canada, 27th September, 1899; 6 years. (Filed 26th June, 1899.)

*Claim.*—1st. A machine for shocking grain, comprising the combination of a carrier, adjustable sides, and a dividing board, four

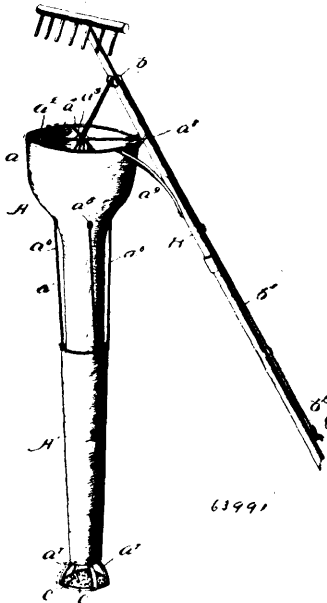


arms secured on the rock shafts, operated by a crank which revolves loosely on the shaft, and stopped at the half revolution by stops, operated by the spring board, by means of lever connection, and mechanism, as described, to operate the needle and the knotted shafts and the shock carrier periodically by the counter. 2nd. In a machine for shocking grain, a frame having adjustable sides, a carrier in said frame, a dividing board parallel with said carrier, and rounded at one end to a point, a springboard in front of the carrier hinged at its rear end, arms secured on rock shafts which are operated by a crank connected to the rock shaft, by rod connection, stops to stop the crank at the half revolution, and connected to the springboard by lever connection, the regulation of the mechanism operates the counter, or numeral indicator as described. 3rd. A machine for shocking grain consisting of a frame having adjustable sides, a carrier in said frame, a dividing board parallel with said carrier, a springboard at the forward part of the machine, a crank operating the four hinged and curved arms by rod connection to the rock shafts of which the arms are secured, said crank loose on the shaft *L*, and revolving when the stops move sideways, the drive wheel of the carrier driving mechanism being loose on shaft *88*, and to revolve one revolution when required to discharge the shock, a clutch on the forward shaft of the carrier and mechanism regulated by the counter or numeral indicator, as described. 4th. In a machine for shocking grain, a frame having adjustable sides and containing a carrier, a dividing board, held parallel with the carrier, hinged sheaf-placing arms operated by a crank and rods connecting said crank, and rock shafts, to which the arms are secured, the said crank fitting loosely on its shaft, stops operated by the springboard, by lever connection, one of the rock shafts to work a ratchet wheel having a projection which intermittently engages with a lever that releases a catch on the knotted shaft, a catch secured to knotted shaft, to engage with an arm to lift it up, the arm then freeing a catch to operate the carrier driving mechanism and tension springs attached to said lever and arm, as described. 5th. A machine for shocking grain comprising a frame and adjustable sides, a carrier, a dividing board, a springboard hinged at its rear end, and the forward end supported by springs which allow the springboard to yield by the weight of the sheaves, the stops moving outwardly as the sheaves fall upon the springboard, a crank operating arms, on rock shafts which are connected to the crank, the springboard contracting the stops when raised by said springs, and thus stop the crank at the half revolution, the ratchet wheel worked by a rod secured to a lug on shaft *E*, said rod to engage with the teeth of said ratchet wheel which has a projection to intermittently engage with a lever which releases a catch secured to the knotted shaft, the knotted shaft which has a catch that engages with an arm which frees a catch that works the carrier as described. 6th. A machine for shocking grain consisting of a frame with adjustable sides, a carrier and a dividing board rounded to a point at the forward end, a springboard, a shaft *L*, having a loose crank which has a catch to operate the stops at every half revolution, said catch released by the falling of the sheaves on the springboard, the shaft *E*, having a lug which operates the ratchet wheel with projection to intermittently engage with a lever that releases a catch on the knotted shaft to turn one revolution, a catch on the knotted shaft to engage with an arm that releases a catch which drives the carrier, and a crank on the lower end of the knotted shaft connected to the lever on the needle shaft, as described. 7th. A machine for shocking grain comprising a frame with adjustable sides, a carrier in said frame and a dividing board rounded at the forward end and parallel with the carrier, arms to operate by the falling of the sheaves on the springboard by mechanism and the carrier to revolve at certain intervals by the regulation of the counter, which consists of a ratchet wheel, having a projection that engages with a lever, as described. 8th. A machine for shocking grain consisting of a frame with adjustable sides, a carrier, and a dividing board parallel with the carrier, arms operated by mechanism, and the carrier to operate at intervals by the regulation of the counter, as described. 9th. A machine for shocking grain, con-



structed and arranged as described and illustrated in the accompanying drawings. 10th. In a machine for shocking grain, a frame with adjustable sides, and containing a carrier, the forward shaft of carrier having a clutch, and the carrier to revolve intermittently by the regulation of a counter, or numeral indicator, means provided for the operation of the sheaf-placing arms, as described. 11th. A machine consisting of a frame with adjustable sides, a dividing board parallel with the carrier and rounded at the forward end to a point, a springboard hinged at its rear end, and supported with springs at its forward end, arms to work by the falling of the sheaves on the springboard through the medium of described mechanism, the knotter shaft to revolve to rock a needle shaft, the carrier to revolve after the arms have operated a number of times, as described. 12th. A machine for shocking grain consisting of a frame with adjustable sides and containing a carrier, a division board parallel with said carrier, a springboard at the forward part of the machine and connected to stops which engage with a catch secured to a loosely fitting crank, said crank to operate the arm on the rock shafts connected to the crank, a counter worked by the crank through the motion of the rock shaft E, said counter consisting of a ratchet wheel having a projection which engages with a lever to release a catch secured to the knotter shaft which has a catch to engage with an arm that lifts up and releases a catch that operates the carrier, as described. 13th. A machine for shocking grain, having a carrier which works intermittently, by the regulation of a counter in combination with mechanism, as described. 14th. A machine for shocking grain having a counter which regulates the movement of the needle, the knotter shafts, and the carrier, in combination with mechanism, to operate the said counter, as described. 15th. A grain shocking machine provided with double sheaf placing arms, said arms suitably curved and hinged and operated by mechanism as described to place an equal number of sheaves on each side of the dividing board to operate each pair alternately on their respective vertical rock shafts. 16th. A grain shocking machine provided with a pair of double sheaf placing arm, said arms suitably curved and hinged and automatically operated by mechanism described, to operate each pair alternately, on their respective vertical shafts, these said shafts, and the vertical knotter and needle shafts supported by the bearings on the vertical columns.

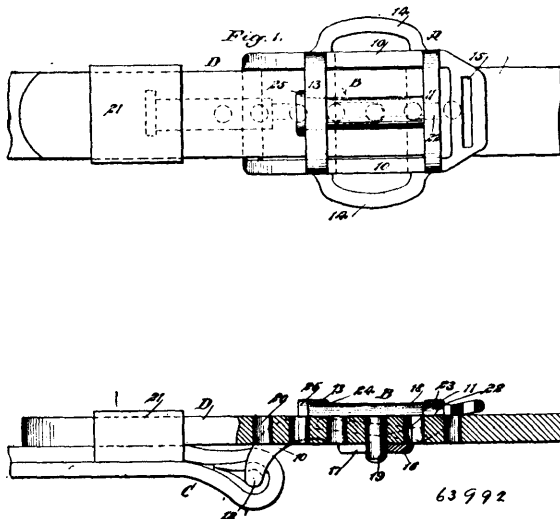
**No. 63,991. Fruit Picker. (Jaffet.)**



Gotleb Von Alma, George Hughes and John Hughes, all of Kilworthy, Ontario, Canada, 27th September, 1899; 6 years. (Filed 15th June, 1899.)

*Claim.*—1st. A fruit picker, comprising a telescoping body portion, a supporting handle therefor, adjusting ropes secured to said body portion and attached to said handle, substantially as described. 2nd. A fruit picker, comprising an upper section, a lower section telescoping therewith, a supporting handle secured to said upper section, and adjusting ropes secured to said lower section and passing through the interior of the upper section and attached to the said handle, substantially as described. 3rd. A fruit picker, comprising an upper section having an enlarged top and a funnel shaped lower portion, ropes attached to the edges of said top and to a ring arranged in the centre thereof, a lower telescoping section, a handle adjusting ropes secured to said lower section, leading into said upper section and through said ring and attached to said handle, and a cushion secured to the bottom of said lower section, substantially as described.

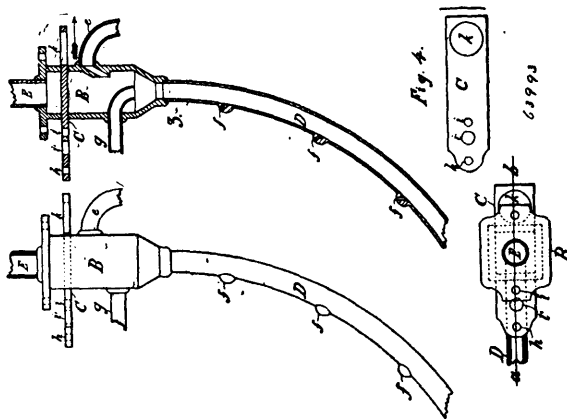
**No. 63,992. Harness Buckle. (Boucle de harnais.)**



Frank Blair Chapman and William Lowary Freeman, assignees of James Alexander Gavitt, all of Pomeroy, Washington, U.S.A., 27th September, 1899; 18 years. (Filed 9th June, 1899.)

*Claim.*—1st. A buckle, consisting of a frame, a tongue independent of the frame, and mounted to slide therein, as set forth. 2nd. A buckle, consisting of a frame, a tongue independent of the frame and mounted to slide therein, and means for locking the tongue in the frame, as specified. 3rd. A buckle, consisting of a frame provided with an upper and lower cross bar, an upper intermediate cross bar and a plate located between the upper and intermediate cross bars, said plate being provided with a slot in one of its edges, and a tongue independent of the frame, which tongue is provided with a head adapted for engagement with one of the said cross bars, and a pin arranged to enter the slot in the said plate when said head engages with said cross bar, as described. 4th. In a buckle, the combination with a frame consisting of side bars having one of their ends downwardly and the upper end upwardly curved, cross bars connecting the side bars at their ends, the cross bar at the upwardly curved ends of the side bars having a recess in its under surface, and a slotted plate located between the intermediate cross bar and the cross bar at the upturned end of the side bars, of a tongue adapted to fit into the recesses of the intermediate cross bar and the cross bar at the upturned end of the frame, the said tongue consisting of a strip having a head at one end adapted for engagement with the intermediate cross bar, and a pin arranged to enter the slot in said slotted plate, as described.

**No. 63,993. Locomotive Track Sander. (Locomotive à sabler les rails.)**

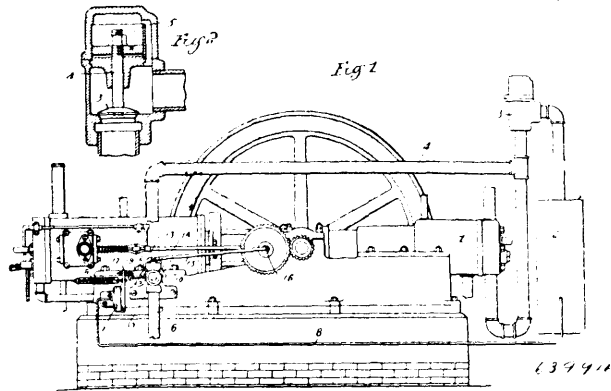


John G. McDonald and Gardner Clish, both of Truro, Nova Scotia, Canada, 27th September, 1899; 6 years. (Filed 19th June, 1899.)

*Claim.*—1st. In a locomotive track sander a movable slide valve having graded ports and a blank portion or closing space, substantially as shown and described and for the purpose specified. 2nd. In a locomotive track sander the combination of a steam pipe passing into the interior of a shell and adapted to the delivery of a steam blast in a downward direction, with an overflow escape from said shell, and a delivery pipe having a number of overflow escapes,

substantially as shown and described and for the purpose specified. 3rd. In a locomotive track sander a shell adapted to the horizontal movement of a slide valve, and having sand inlet and outlet apertures, a steam inlet and a steam escape, with a slide valve having graded ports and a blank portion or closing space, substantially as shown and described and for the purpose specified. 4th. A locomotive track sander consisting of a shell adapted to the horizontal movement of a slide valve and having sand inlet and outlet apertures, a steam inlet, a steam outlet aperture, in combination with a slide valve having graded ports and a blank portion or closing space, a steam pipe adapted to the delivery of a steam blast in a downward direction passing into said shell, an overflow escape in said shell, and a delivery pipe having a number of overflow escapes, substantially as shown and described and for the purpose specified.

**No. 63,994. Compression Controller.**  
(*Contrôleur à compression.*)



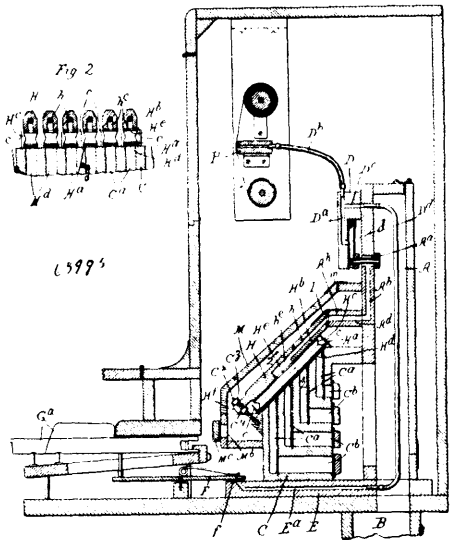
Fairbanks, Morse & Co., Chicago, Illinois, assignees of Franklin Gatfield Hobart, Beloit, Washington, U.S.A., 27th September, 1899; 6 years. (Filed 1st May, 1899.)

*Claim.*—1st. The combination with a compressor having an unloading valve applied thereto, of a check valve between said unloading valve and the compressor receiver, said check valve being provided with means whereby its seating is retarded. 2nd. A compressor unloading device or controller comprising an unloading valve, means whereby said valve may be opened and closed by motion received from some moving part of the compressor, and means whereby said first mentioned means is thrown into or out of action automatically by the pressure in the receiver. 3rd. A compressor unloading device comprising an unloading valve, a ratchet handle secured thereto, a pawl designed to engage said ratchet handle, connection between said pawl and some moving part of the compressor whereby said pawl receives a reciprocating motion, and an automatic pressure operated device whereby said pawl is thrown into or out of action to open or close said unloading valve. 4th. A compressor unloading device comprising an unloading valve, a ratchet handle secured thereto, a pawl designed to engage said ratchet handle, connection between said pawl and some moving part of the compressor whereby said pawl receives a reciprocating motion, and a spring and diaphragm device whereby said pawl is thrown into or out of action to open or close said unloading valve. 5th. A compressor unloading device comprising an unloading valve, a ratchet handle secured thereto, a pawl designed to engage said ratchet handle, an eccentric pin rotated by the compressor whereby said pawl receives a reciprocating motion, and an automatic pressure operated device whereby said pawl is thrown into or out of action to open or close said unloading valve.

**No. 63,995. Pneumatic Organ.** (*Orgue pneumatique.*)  
Melville Clark, Chicago, Illinois, U.S.A., 27th September, 1899; 6 years. (Filed 2nd February, 1899.)

*Claim.*—1st. In a reed organ, in combination with the reed chambers, motor pneumatics or bellows whose moving sides constitute the valves for the reed chambers respectively, such bellows each having the back adapted to be fixed with respect to the seat of such valve, formed by the moving wall of the bellows, and releasable and movable at will away from the valve seat to afford unobstructed access to the reeds and permit their removal. 2nd. In a reed organ, in combination with the wind chest, the reed blocks mounted thereon having a plurality of reed chambers corresponding to each note, all opening at a common face or valve seat, a motor pneumatic or bellows whose moving sides constitutes the valve adapted to seat on such face to control all such reed chambers, a primary pneumatic which controls such motor pneumatic, the air duct leading into such motor pneumatic being formed in the back of the same and in a fixed portion of the wall of the wind chest, said pneumatic back being movably joined to such fixed portion at a junction plane transverse to the duct. 3rd. In combination with a wind chest, the reed block mounted thereon having a plurality of reed chambers opening upward through an outer face

of the reed block, motor pneumatics having their backs adapted to be fixed with respect to the faces of the reed blocks and releasable



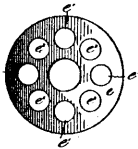
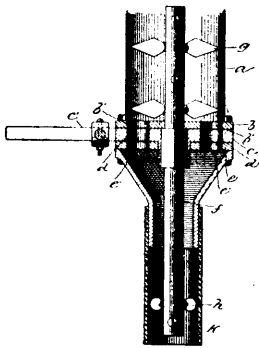
and movable at will, and their moving walls adapted to serve as valves to seat on said face, air ducts leading to the motor pneumatics respectively into the wind chest and to the outer air, primary pneumatics mounted outside the wind chest carrying valves which control both said mouth, said primary pneumatics having suitable communication with the wind chest, and suitable means for venting the same, substantially as set forth. 4th. In a reed organ, in combination with a wind chest, a reed block mounted exteriorly thereto having a plurality of reed chambers opening upward through an outer face of such reed block, a motor pneumatic or bellows having its back fixed with respect to said face and releasable and movable at will, and its moving wall adapted to advance and retreat bodily with respect to the face and to seat thereon to operate as a valve to close the mouths of the reed chambers, a duct leading through such fixed back and communicating with the outer air and with the wind chest, and a primary pneumatic to control both such communications. 5th. In combination with the wind chest, a reed block mounted exteriorly thereto having a plurality of reed chambers opening upward through an exterior face of such block, a motor pneumatic having its back hinged to the wind chest and adapted to swing toward said face of the reed block and to be stopped relatively thereto, and having its moving wall adapted to seat on such face and operate as a valve over the mouths of the reed chambers, an air duct leading into such pneumatic through the back thereof from the hinged edge and communicating at such hinged edge with a duct formed in the wall of the wind chest, such duct leading to mouths which open respectively to the outer air and into the wind chest, and a primary pneumatic carrying valve which control both of said mouths. 6th. In a reed organ, in combination with the reed chambers, motor pneumatics having bellows whose moving sides constitute the valves for the reed chambers respectively, such bellows having the back adapted to be fixed with respect to such seat, and adjusting devices by which the back is secured and adjusted with respect to the seat to cause the moving wall to seat accurately thereon. 7th. In combination with the wind chest and the reed blocks mounted exteriorly thereon having a plurality of reed cells in each block opening through an outer face thereof, a motor pneumatic having its moving wall adapted to serve as a valve, seating on such face, the back or fixed wall of such motor pneumatic being hinged at one edge, and a threaded stud *e* adapted to engage the opposite edge of the back, and nuts on said bolt between which said edges engage, whereby said back may be adjustably secured at said edge. 8th. In a reed organ, in combination with a reed block having a plurality of chambers through one face thereof, a motor pneumatic whose moving wall constitutes a valve seating on said face to close the mouth of the reed chambers, and guide pins *c c*, which engage opposite edges of the moving wall to guide the same to a seat.

**No. 63,996. Sand Distributing Device.**  
(*Appareil à distribuer le sable.*)

John J. Murray, New York City, New York, U.S.A., 27th September, 1899; 6 years. (Filed 16th February, 1899.)

*Claim.*—1st. In combination, the hopper with perforated bottom, the rotarily reciprocating gate provided with co-operating perforations, the plate below the gate provided with co-operating perforations, the handle for operating said gate extending later-

ally therefrom, and the shaft adapted to be rotarily reciprocated by and with said gate, and provided with stirrer pro-

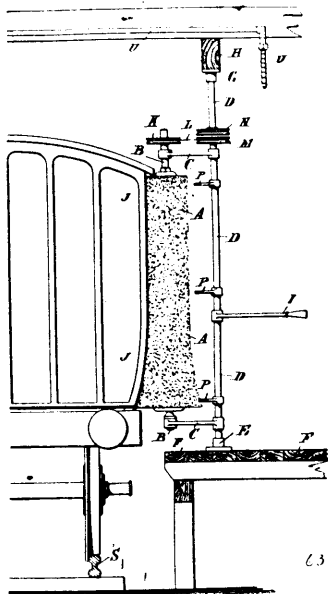


63996

jections both above and below the gate, all substantially as described and for the purposes set forth. 2nd. In combination, the hopper with perforated bottom, the rotarily reciprocating gate provided with co-operating perforations, and the plate below the gate provided with duplicate perforations for and adapted to co-operate with said perforations in the gate, both when the gate is open and when the gate is shut, all substantially as described and for the purposes set forth.

**No. 63,997. Apparatus for Washing Vehicles.**

(Appareil à laver les voitures.)



63997

Charles Alexander Wheeler, 14 Harley Road, Willesden, Middlesex, England, 27th September, 1899; 6 years. (Filed 20th February, 1899.)

*Claim.*—1st. Railway carriage washing apparatus consisting of revolving brushes A, screws Q, vertical water spray pipes in combination and carried by shafts B, D, and capable of side swing by hand lever I, as set forth. 2nd. Railway carriage washing apparatus consisting of revolving brushes A, screws Q, and vertical water spray pipes in combination and carried by shafts B, D, and capable of reciprocation by hand lever I, as set forth and shown. 3rd. Railway carriage washing apparatus consisting of combined up and down and revolving brushes A, screws Q, and vertical water spray pipes arranged and acting in the manner set forth and as represented on the annexed drawings.

**No. 63,998. Grinding Machine.** (*Appareil à aiguiser.*)

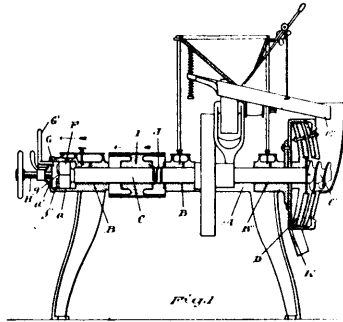
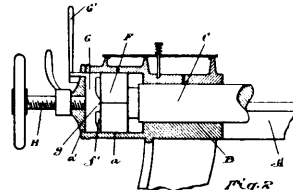


Fig. 1



63998

Herbert W. Fleury, Aurora, Ontario, Canada, 27th September, 1899; 6 years. (Filed 16th February, 1899.)

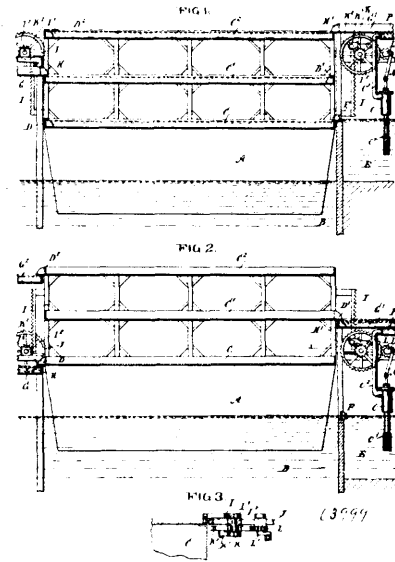
*Claim.*—1st. A grinding machine embracing in its construction a laterally adjustable grinding plate, and means to normally lock the grinding plate in its adjusted position and when released to move it away from the stationary grinding plate, substantially as specified. 2nd. A grinding machine embracing in its construction a laterally adjustable shaft, a grinding plate fixed to the shaft, a lock to hold the shaft normally in its adjusted position, and arranged to be released to allow of the lateral movement of the shaft and grinding plate, substantially as specified. 3rd. A grinding machine embracing in its construction a laterally adjustable shaft, a revolvable grinding plate fixed to the shaft, a stationary grinding plate opposed to the revolvable grinding plate, a lock to normally hold the shaft in its adjusted position, and arranged to be released to allow of the lateral movement of the shaft and revolvable grinding plate, substantially as specified. 4th. A grinding machine embracing in its construction a laterally adjustable shaft, a revolvable grinding plate fixed to the shaft, a stationary grinding plate opposed to the revolvable grinding plate, a cam to normally lock the shaft in its adjusted position, and arranged to be released, and means to move the shaft laterally on the release of the locking cam or separate the grinding plates, substantially as specified. 5th. A grinding machine embracing in its construction a laterally adjustable shaft, a revolvable grinding plate fixed to the shaft, a stationary grinding plate opposed to the revolvable grinding plate, a thrust bearing, one side face of which is opposed to the end of the laterally adjustable shaft, a cam or cams fitted to the opposite face of the thrust bearing to normally hold the shaft in its adjusted position, and arranged to be released to allow of the lateral movement of the shaft, substantially as specified. 6th. A grinding machine embracing in its construction a laterally adjustable shaft, a revolvable grinding plate fixed to the shaft, a stationary grinding plate opposed to the revolvable grinding plate, a thrust bearing, one side face of which is opposed to the end of the laterally adjustable shaft, a cam or cams fitted to the opposite face of the thrust bearing, and a locking cam engaging the cams of the thrust bearing to normally hold the shaft in its adjusted position, and arranged to be released to allow of the lateral movement of the shaft, and a spring to move the shaft laterally when the locking cam is released, substantially as specified.

**No. 63,999. Tide Motor.** (*Roue d'eau.*)

William Reed, New York City, New York, U.S.A., 27th September, 1899; 6 years. (Filed 9th January, 1899.)

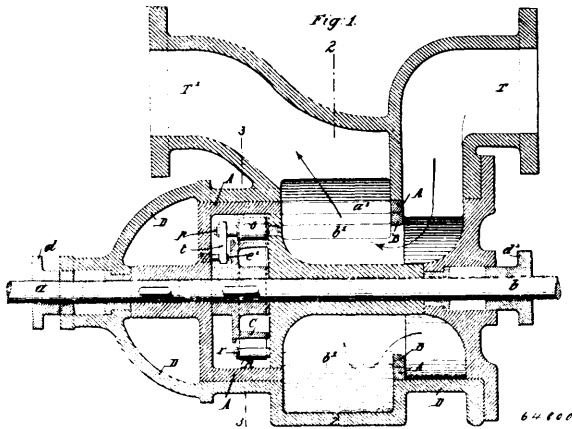
*Claim.*—1st. A tide power provided with a float arranged to rise and fall with the tide, and carrying a plurality of superimposed water receiving receptacles, and stationary reservoirs at different levels and each adapted to be filled from a corresponding float receptacle at high tide, substantially as shown and described. 2nd. A tide power provided with a float arranged to rise and fall with the tide, a water receiving receptacle carried by said float, and a stationary supply reservoir arranged to fill said receptacle at low tide, substantially as shown and described. 3rd. A tide power provided with a float arranged to rise and fall with the tide, a water receiving receptacle carried by said float, a stationary supply reservoir arranged to fill said receptacle at low tide, and a stationary

reservoir above the level of the supply reservoir, and adapted to receive the water from the float receptacle at high tide, substan-



tially as shown and described. 4th. A tide power provided with a float arranged to rise and fall with the tide and carrying a plurality of superimposed water receiving receptacles, stationary reservoirs at different levels and each adapted to be filled from a corresponding float receptacle at high tide, and adapted to fill the next float receptacle at low tide, and a stationary supply reservoir arranged to fill the lowermost float receptacle at low tide, substantially as shown and described.

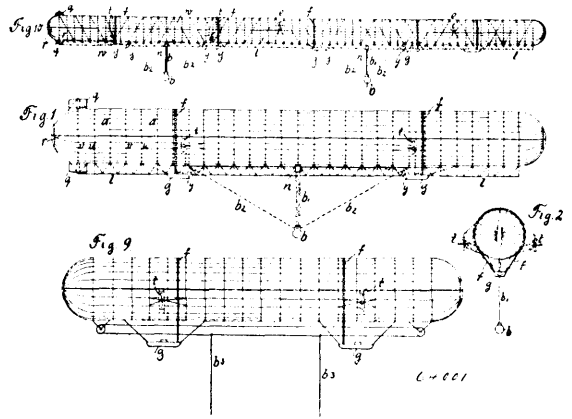
**No. 61,000. Engine Governor.**  
(Gouverneur de machine à vapeur.)



Henri Emile Menier, 54 Rue de Chateaudun, Paris, France, 27th September, 1899; 6 years. (Filed 7th January, 1899.)

*Claim.*—1st. A governor for steam and other engines, characterized by the combination of a motor drum connected invariably to the engine to be regulated, and of a regulator drum working at a given speed, the said drum being provided with ports which cover or uncover according as the angular velocity of the motor drum produces an unlocking or unwedging action, upon the latter, to a greater or less extent, with regard to the regulator drum, for the purpose of reducing or increasing the efflux or passage of the motive fluid, according to requirements, as above described. 2nd. In a governor for steam and other engines, the free arrangement of the regulator drum and its combination with a sliding brake, the pulley of which is keyed on the shaft of the said regulator drum, this combination having for object after an abrupt and considerable variation of speed of the engine to be regulated, to solidarise the two drums after the complete opening or closing of their passage ports and that until the said engine regains the predetermined speed decided by the initial speed of the regulator drum. 3rd. In a governor for steam and other engines, the combination of the regulator drum with a centrifugal ball governor and with a friction gear for the control of the said regulator drum by the machine to be regulated, this combination ensuring a moment of equilibrium, always ready to be broken or to be formed, which may be such that the regulator drum revolves at a constant speed, as above specified.

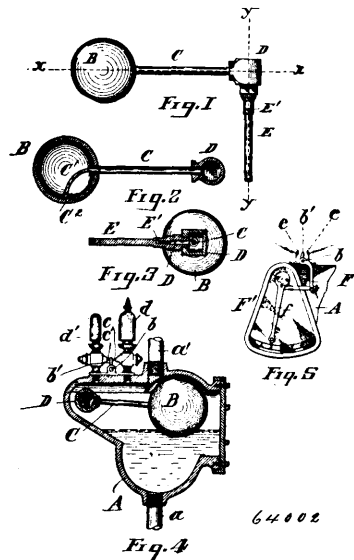
**No. 61,001. Balloon. (Ballon.)**



Count Ferdinand Von Zeppelin, 19 Keplerstrasse, Stuttgart, German Empire, 27th September, 1899; 6 years. (Filed 3rd January, 1899.)

*Claim.*—1st. In a balloon, the combination of a frame work divided into separate compartments, with a main gas bag in each compartment, adapted to expand and fill the same when permitted, and auxiliary gas bags in the compartments for maneuvering, to permit the main gas bags to retain their full quantity of gas unaffected by the admission of air, substantially as set forth. 2nd. The combination of a balloon, with running weight suspended beneath the same, rotary drums provided with fuses, and a rope stretched from the weight to and around each fusee, substantially as set forth. 3rd. The combination of a balloon, with a weight suspended beneath the same, and adjustable in height, a movable carriage supporting the weight, rotary drums to which the carriage is connected and which are provided with fuses and a rope stretched from the weight to and around each fusee, substantially as and for the purpose set forth. 4th. An air craft comprising a series of balloons coupled together and provided with rigid casings, the foremost of said balloons being provided with a driving mechanism, and the remainder adapted to carry the load of freight, and extensible covers secured to the rigid casing and covering the intermediate spaces between two adjacent balloons.

**No. 61,002. Low Water Alarm and Indicator.**  
(Indicateur du niveau d'eau.)

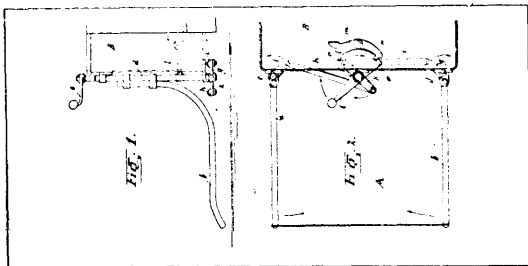


Leopold Steigert, Cincinnati, Ohio, U.S.A., 27th September, 1899; 6 years. (Filed 14th December, 1898.)

*Claim.*—In a steam boiler alarm, the combination with a shell or chamber, connected with the boiler, of two alarm devices thereon, a rock shaft between the alarms provided with an arm at one end and with an upright between the alarms and adapted to engage with either one of them, a rock shaft journalled in the shell or casing, the inner end of which is provided with a float and the outer end is provided with an indicating finger, and a pivoted rod connecting the finger with the arm on the first mentioned rock shaft, substantially as set forth.

**No. 64,003. Railway Carriage Safety Apparatus.**

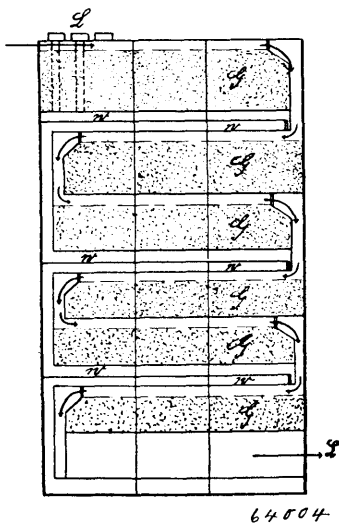
(Appareil de sûreté pour chars de chemin de fer.)



Oscar Freiherr Vod Buseck, 110 Koerneritz, Strasse, Schlenzig, Leipzig, Saxony, 27th September, 1899; 6 years. (Filed 28th March, 1898.)

*Claim.*—1st. A safety apparatus comprising a net pivotally secured to the front of a carriage or car, and means for folding up the said net, substantially as and for the purpose set forth. 2nd. In combination with a carriage or car, rods pivotally secured to the front of the said carriage or car, a net fixed to the said rods, and means for turning the said rods, substantially as and for the purpose stated. 3rd. In combination with a carriage or car, rods pivotally secured to the front of the said carriage or car, a net fixed to the said rods, means for turning the said rods in the given position, substantially as and for the purpose specified. 4th. In combination with a carriage or car, rods secured to the front of the said carriage or car, a net fixed to the said rods, pivots fitted to the said carriage or car and the said rods, a crank journaled in the front of the said carriage or car, a double armed lever attached to the said crank and connected to the said pivots, and means for holding the said rods and said net in the given position, substantially as and for the purpose described. 5th. In combination with a carriage or car, rods secured to the front of the said carriage or car, a net fixed to the said rods, pivots fitted to the said carriage or car and the said rods, a crank journaled in the front of the said carriage or car, a double armed lever attached to the said crank, arms secured to the said pivots and connected to the said double armed lever and connected by links, and means for holding the said rods and said net in the given position, substantially as and for the purpose stated. 6th. In combination with carriage or car rods secured to the front of the said carriage or car, a net fixed to the said rods, pivots fitted to the said rods, a crank journaled in the front of the said carriage or car, a double armed lever attached to the said crank, arms secured to the said pivots and connected to the said double armed lever by links, a plate fixed to the said crank and provided with notches, and a pawl secured to the bottom of the said carriage or car and adapted to catch in the notches of the said plate, substantially as and for the purpose set forth.

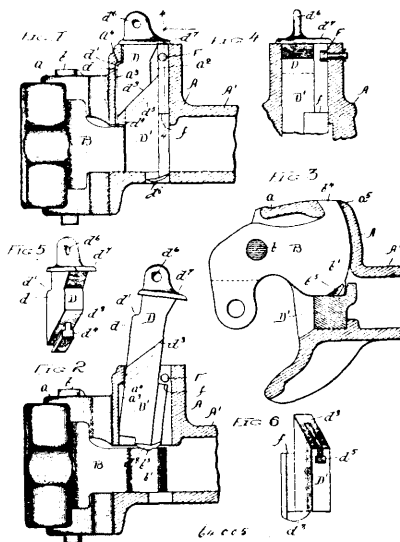
**No. 64,004. Carburettor for Air Gas Automatic Apparatus.** (Appareil automatique pour carburateurs de gaz à air.)



Maximilian Heinrich Jolles, Berlin W., Franzosischester 64 Germany, 27th September, 1899; 6 years. (Filed 28th November, 1898.)

*Claim.*—In an atmospheric air carburettor, the carbureting chambers formed smaller in succession to diminish condensation of the gasoline and thinning of the atmospheric air, substantially as described.

**No. 64,005. Car Coupler.** (Attelage de chars.)

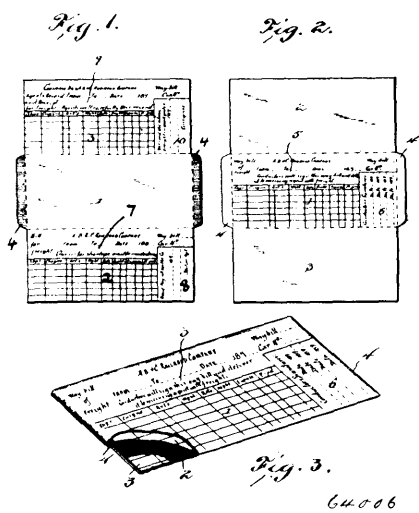


James Munton, Maywood, Illinois, U.S.A., 27th September, 1899; 6 years. (Filed 15th May, 1899.)

*Claim.*—1st. The automatic car coupler, consisting of a forked draw head and a pivoted knuckle, in combination with a gravity locking pin composed of two parts or members having a wedging connection between them to cause one member of said pin to engage the drawhead and prevent creeping or jumping upward of the locking pin, substantially as specified. 2nd. In an automatic car coupler, the combination with a pivoted knuckle, of a forked drawhead having a passageway for a locking pin or block furnished with an enlargement or shoulder to engage a corresponding enlargement or shoulder on the locking pin or block, and a gravity locking pin or block composed of two parts or members with a wedging connection between them, substantially as specified. 3rd. In a car coupler, the combination with a knuckle and a forked drawhead having a passageway or opening for a locking pin or block furnished with a lodge or shoulder for a projection on the locking pin to bind against, and a locking pin made of two members or parts capable of being lifted freely by the upper member and incapable of being pushed up by force applied to the lower member, substantially as specified. 4th. In a car coupler, the combination with a drawhead and knuckle, of a two-part wedge-acting lock, the drawhead having an opening or passageway for the lock furnished with a shoulder or enlargement to receive the upper part or member of the lock and prevent creeping or jumping of the lock, substantially as specified. 5th. In a car coupler, the combination with the drawhead, of a pivoted knuckle, of a two-part locking pin or block, the two members of which have a wedging connection, a projection at the lower end of the locking pin, the tail of said knuckle having a groove to receive and hold the projection on the locking pin, substantially as specified. 6th. In a car coupler, the combination with a forked drawhead, of a pivoted knuckle having a hook or projection on its tail adapted to fit against a shoulder or ledge in the pivot arm of the drawhead, and a two-part wedge acting locking pin or block adapted to be lifted freely by its upper member and incapable of being moved upward by force applied to its lower member, substantially as specified. 7th. In a car coupler, the combination with a forked drawhead, of a pivoted knuckle having a hook or projection on its tail adapted to fit against a shoulder or ledge in the pivot arm of the drawhead, and a two-part wedge acting locking pin or block adapted to be lifted freely by its upper member and incapable of being moved upward by force applied to its lower member, a groove on the tail of the knuckle, and a projection on the lower member of the locking pin adapted to ride in said groove to hold the locking pin in its elevated position for coupling the cars, substantially as specified. 8th. In an automatic car coupler, the combination with a pivoted knuckle, of a forked drawhead having a passageway for a gravity locking pin or block, furnished with a shoulder or ledge to engage a corresponding shoulder or ledge on the locking pin or block, and a gravity locking pin or block composed of two parts or members having a wedging or inclined connection between the two, the upper part or member of said locking pin or block having a shoulder or projection adapted to fit under and

engage said shoulder or ledge on the drawhead, substantially as specified. 9th. In an automatic car coupler, the combination with a pivoted knuckle, of a forked drawhead having a passageway for a gravity locking pin or block, furnished with a shoulder or ledge to engage a corresponding shoulder or ledge on the locking pin or block, and a gravity locking pin or block composed of two parts or members having a wedging or inclined connection between the two, the upper part or member of said locking pin or block having a shoulder or projection adapted to fit under and engage said shoulder or ledge on the drawhead, the lower part or member of said locking pin having a projection at its lower end adapted to engage the forward rear corner of the tail of the knuckle when the lock is lifted and tilted forward, thus forming the lock set, substantially as specified. 10th. In an automatic car coupler, the combination with a forked drawhead having a recess in its pivot arm forming a shoulder or ledge for engagement with a hook on the knuckle tail, of a pivoted knuckle having a hook or projection on its tail adapted to fit against said shoulder or ledge in the pivot arm of the drawhead, and a two-part wedge-acting locking pin or block adapted to be lifted freely by its upper member, and incapable of being moved upward by force applied to its lower member, the upper member of said locking pin having a shoulder or projection fitting under and adapted to engage a shoulder or ledge on the drawhead, substantially as specified.

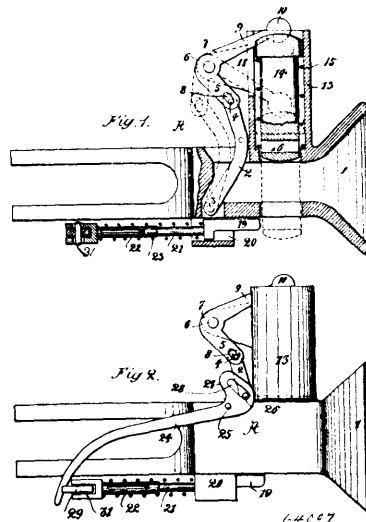
**No. 64,006. Railway Record Blank.**  
(Blanc de registre de chemin de fer.)



Ransom Albert Grout, Esterville, Iowa, U.S.A., 27th September, 1899; 6 years. (Filed 22nd May, 1899.)

*Claim.*—1st. A railway record envelope, consisting of a foldable sheet formed of a number of sections separable with relation one to the other substantially at the lines of fold and adapted to be secured at one end of the complete envelope, one section forming a way-bill blank and the other section or sections having the same spaces as the way-bill blank and adapted to be folded for the spaces of said section to register with corresponding spaces of the way-bill blank and to co-operate with a carbon sheet, as and for the purposes described. 2nd. A railway record envelope, consisting of a folded paper sheet formed in three main sections separable with relation to each other at the lines of fold and secured together at the ends of the complete envelope to leave the latter open at one side edge, the middle section of the folded sheet having imprinted thereon an exposed way bill blank, and the other two sections having imprinted thereon so as to be readable on the reverse side from the way-bill blank, respectively a consignee's receipt and an agent's record having the same record spaces as the way-bill blank, and adapted to register therewith and co-operate with a carbon sheet, one of said latter sections being tucked within the open side of the envelope and thereby causing both the consignee's receipt and agent's record to be disposed entirely within the envelope and protected from handling, substantially as set forth. 3rd. A railway record envelope, consisting of a foldable sheet formed in a number of sections which are separable with relation one to the other and secured together at one end of said envelope, the middle section having imprinted thereon an exposed way-bill blank and the other section or sections having the same spaces as said way-bill blank and adapted to be folded to register with the corresponding spaces of the way-bill blank, one of the last-named sections serving as a consignee's receipt and subdivided into a number of sections separable individually one from the other, as and for the purposes described.

**No. 64,007. Car Coupler.** (Attelage de chars.)



Emil Richard Berude, 6 Hainstrasse, Dresden-Blasewitz, German Empire, 27th September, 1899; 6 years. (Filed 5th May, 1899.)

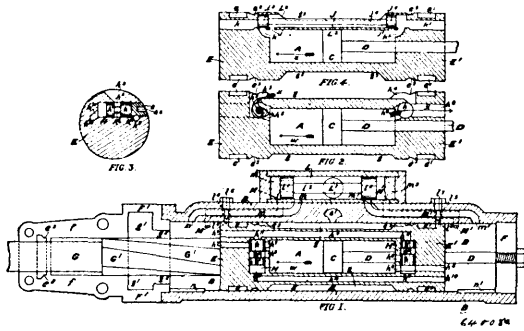
*Claim.*—1st. In an automatic car coupling, the combination of a coupling part yieldingly and removably secured to one car end, having a hollowed out front end and a funnel-shaped intake, a coupling bolt or pintle resting upon a helical spring with a cylindrical guide piece, means for lowering and lifting the said pintle transversely across the said intake and the said hollow and a coupling eye-bolt, secured opposite the said intake to the facing car end, substantially as set forth. 2nd. In an automatic car coupling, the combination of a coupling part secured to the car end and having a hollowed out front end and a funnel-shaped intake, a coupling bolt or pintle resting upon a helical spring within a hollow, cylindrical guide piece, means for lowering and lifting the said pintle transversely across the said intake and the said hollow and means for automatically securing the said coupling bolt in its coupling position, as set forth. 3rd. In an automatic car coupling, the combination of a coupling part having a hollowed out front end and a funnel-shaped intake, a lever pivoted at its lower end within the said hollow, extending upwardly and adapted to swing backwards upon the other coupling part pushing against it, a bell crank lever connected with one end to the upper end of the said upwardly extending lever by means of a pin and slot, and pivoted to a flap secured to the cylindrical hollow guide piece for the coupling bolt, said bolt resting upon a helical spring and having a transverse groove in its head for receiving the disc-shaped free end of the said bell crank lever, as and for the purpose set forth. 4th. In an automatic car coupling, the combination of a coupling part having a hollowed out front end and a funnel-shaped intake, a lever pivoted at its lower end within the said hollow, extending upwardly and adapted to swing backwards upon the other coupling part, pushing against a bell crank lever connected with one end to the upper end of the said upwardly extending lever by means of a pin and a slot and pivoted to a flap secured to the cylindrical hollow guide piece for the coupling bolt, said bolt resting upon a helical spring and having a transverse groove in its head for receiving the disc-shaped free end of the said bell crank lever and a transverse slot in its lower end, a locking bolt to engage the said transverse slot, said locking bolt forming the front end of a rod, slidingly arranged within a tube, a helical spring interposed between the outer ends of the said rod and tube and a lever pivotally and yieldingly secured to the outer end of the said tube, a pivoted lever being actuated during the last part of the swing movement of the said upwardly extending lever and actuating the said lever pivoted to the outer end of the tube, the parts being constructed, arranged and working, substantially as shown and described.

**No. 64,008. Engine.** (Machine à vapeur.)

James Watson, Johannesburg, South African Republic, 27th September, 1899; 6 years. (Filed 23rd May, 1899.)

*Claim.*—1st. The improvements in compound engines, which consist in the arrangement of the high pressure cylinder within or the enclosing of the same by the low pressure cylinder, the high pressure cylinder working in conjunction with a stationary piston and at the same time constituting or acting as the piston working within the low pressure cylinder, substantially as described. 2nd. In compound engines applicable to rock drilling machines, locomotives, hauling or mill engines, pumps, and the like, the combina-

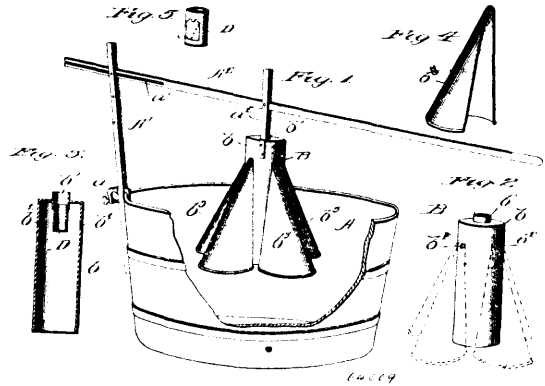
tion of the reciprocating high pressure cylinder and low pressure piston, the stationary high pressure piston, the annular recess of the



high pressure cylinder forming the high pressure steam or air chest, the transverse valve chests formed in the ends of the high pressure cylinder and the valves fitted therein, the feed ports formed in either end of the cylinder placing the interior of the high pressure steam or air chest in communication with the interior of the high pressure cylinder and ports passing through the valve chests, the exhaust ports formed in the ends of the high pressure cylinder, passing through the valve chests and opening into the high pressure cylinder on the one side and into the low pressure cylinder at the other, the longitudinal ports formed in the high pressure cylinder communicating with both valve chests for reversing the valves at the end of the outward and return stroke, the low pressure cylinder and the main feed port formed therein opening into the high pressure steam or air chest, the exhaust valve chamber and exhaust valve fitted therein, the exhaust ports from the low pressure cylinder to the exhaust valve chamber, the ports leading from the low pressure cylinder to the rear of the exhaust valve at either end, substantially as described. 3rd. In rock drilling machines, the combination of the combined high pressure cylinder and reciprocating low pressure piston A, the stationary high pressure piston C, the external annular recess *g* of the high pressure cylinder A constituting the high pressure steam or air chest, the low pressure cylinder B, the high pressure valve chambers H, H<sup>1</sup> formed in the ends or covers E, E<sup>1</sup> of the high pressure cylinder A and transversely thereof, the valves arranged therein, the inlet ports *h*<sup>2</sup>, *h*<sup>1</sup> between the valve chambers H, H<sup>1</sup>, the feed ports *h*<sup>3</sup>, *h*<sup>6</sup> between the valve chambers H, H<sup>1</sup> and the interior of the high pressure cylinder, the exhaust ports *h*<sup>7</sup>, *h*<sup>8</sup> bored through the ends of the high pressure cylinder and placing the interiors of the high and low pressure cylinders in communication, the ports *h*<sup>9</sup>, *h*<sup>10</sup> formed through the high pressure cylinder A and longitudinally thereof and the openings *h*<sup>11</sup>, *h*<sup>12</sup> leading therefrom to the valve chambers H, H<sup>1</sup>, for reversing the high pressure valves at the end of the stroke in either direction, the main or high pressure feed port *a*<sup>1</sup>, formed in the low pressure cylinder B, and opening into the steam or air chest *g*, the exhaust valve chamber L, and exhaust valve arranged therein, the exhaust ports *m m*<sup>1</sup>, between the low pressure cylinder B, and the exhaust valve chamber L, the ports *m m*<sup>1</sup> leading from the low pressure cylinder B to the back of the exhaust valve at either end, the holes *l*<sup>4</sup> *l*<sup>5</sup>, bored through the low pressure cylinder B, and intersecting the ports M M<sup>1</sup>, the valves *l*<sup>6</sup> *l*<sup>7</sup>, fitted therein for shortening the stroke of the cylinder A, the grooves *n n*<sup>1</sup>, formed in the ends of cylinder B, and longitudinally thereof, the drill bar or shaft G, the rifle bar G<sup>1</sup>, forming the connection between the end of the drill shaft G, and the forward end of the cylinder A, and the ratchet wheel *q*<sup>1</sup>, and rifled nut *q*<sup>2</sup>, arranged in the front head or cover F<sup>1</sup>, of the low pressure cylinder B, through which the rifle bar G<sup>1</sup>, works to rotate the drill bar G, on the back stroke, substantially as described. 4th. In compound engines applicable to rock drilling machines, locomotives, hauling or mill engines, pumps and the like, the combination of the compound high pressure cylinder and low pressure piston, the stationary high pressure piston, the external recess or high pressure steam or air chest, the high pressure valve chest formed within the same and the valve arranged therein and longitudinally thereof, the feed ports between the valve chest and the interior of the high pressure cylinder, the exhaust ports through the ends of the high pressure cylinder placing the interiors of the high and low pressure cylinders in communication, the piston rod connected with the front end of the high pressure cylinder, the low pressure cylinder and the main feed port formed therein, the exhaust ports leading from either end of the low pressure cylinder to the exhaust valve chest, the exhaust valve chest and exhaust valve arranged therein and ports leading from the interior of the low pressure cylinder at either end and communicating with the exhaust valve chest at the rear of the exhaust valve at either end, substantially as described. 5th. In compound engines applicable to rock drilling machines, locomotives, hauling or mill engines, pumps and the like, the combination of the combined high pressure cylinder and reciprocating low pressure piston A, the stationary high pressure piston C, the annular external recess or air chest *g*<sup>3</sup>, the high pressure valve chest L<sup>2</sup>, and the valve J arranged

therein, the inlet and exhaust ports *j j*<sup>1</sup>, and *k k*<sup>1</sup>, the piston rings *c c*<sup>1</sup>, fitted in the ends or covers E E<sup>1</sup>, the grooves *c*<sup>3</sup>, formed in the ends E E<sup>1</sup>, between the piston rings *c c*<sup>1</sup>, and the steam or air chest *g*<sup>3</sup>, the low pressure cylinder B, and the main feed port *a*<sup>1</sup>, formed therein and opening into the steam or air chest *g*<sup>3</sup>, the exhaust valve chamber L, and exhaust valve arranged therein, the exhaust ports *m m*<sup>1</sup>, between the low pressure cylinder B, and the exhaust valve chamber L, the ports M M<sup>1</sup>, leading from the low pressure cylinder B to the back of the exhaust valve at either end, the holes *l*<sup>4</sup>, *l*<sup>5</sup>, bored through the low pressure cylinder B, and intersecting the ports M M<sup>1</sup>, the valves *l*<sup>6</sup>, *l*<sup>7</sup>, fitted therein for shortening the stroke of the cylinder A, the grooves *n n*<sup>1</sup>, formed in the ends of the cylinder B, and lengthwise thereof, for admitting the high pressure steam or air to the back of the covers E E<sup>1</sup>, to assist in cushioning same and to reverse the valve J, at the end of the outward and return stroke, substantially as described.

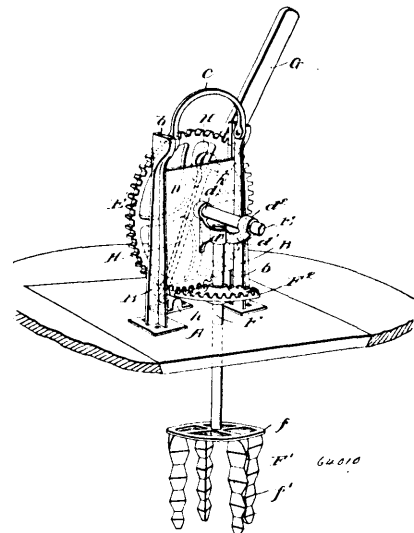
**No. 64,009. Washing Machine. (Machine à laver.)**



Wellington Jackson, Baie Verte, New Brunswick, Canada, 27th September, 1899; 6 years. (Filed 22nd May, 1899.)

*Claim.* 1st. A clothes pounder, comprising a cylindrical body portion having a valved air inlet, a plurality of hollow cones secured to the outside of said cylinder, air passages communicating with the interior of the cylinder and the interior of the cones, and a handle connected with said pounder for operating the same, substantially as described. 2nd. A clothes pounder, comprising a cylindrical body portion, having a valved air inlet, and a series of air openings arranged in the upper portion of said cylinder, a plurality of hollow cones secured upon the outside of said cylinder, and covering said air openings, and a handle adjustably connected to a suitable standard and secured to said pounder, substantially as described.

**No. 64,010. Washing Machine. (Machine à laver.)**



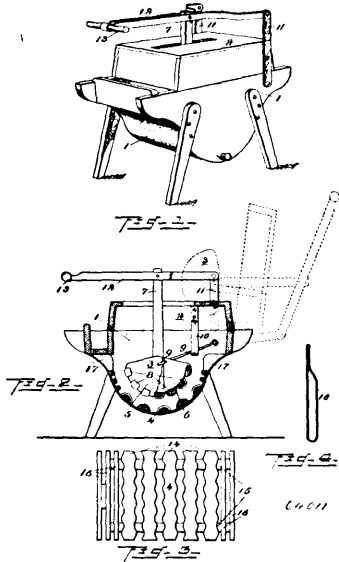
Antoine Etienne Quintal, Montreal, Quebec, Canada, 27th September, 1899; 6 years. (Filed 27th April, 1899.)

*Claim.*—1st. A washing machine, comprising a vertical shaft, an agitator fixed to the lower end of said shaft, a horizontal shaft



operatively connected with said vertical shaft, intermeshing gears fixed to said shafts, a handle for oscillating the gear of said horizontal shaft, and a pitman pivoted to a fixed support and connected with said gear for imparting a vertically reciprocating movement thereto, substantially as described. 3rd. A washing machine, comprising a cover, vertical standards mounted on said cover, a plate slidably mounted in said standards, a bracket fixed to said plate, a horizontal shaft journaled in said bracket, a gear fixed to said shaft, a vertical shaft journaled in said bracket, a gear fixed upon said shaft and meshing with the gear on the said horizontal shaft, an agitator mounted upon said vertical shaft, a handle for oscillating the gear of the horizontal shaft, and a pitman pivotally secured to said cover and connected with said gear, whereby a vertically and a horizontally reciprocating movement is imparted to said agitator, substantially as described.

**No. 64,011. Washing Machine. (Machine à laver.)**



William Hackly Church, Fenelon Falls, Ontario, Canada, 27th September, 1899; 6 years. (Filed 2nd May, 1899.)

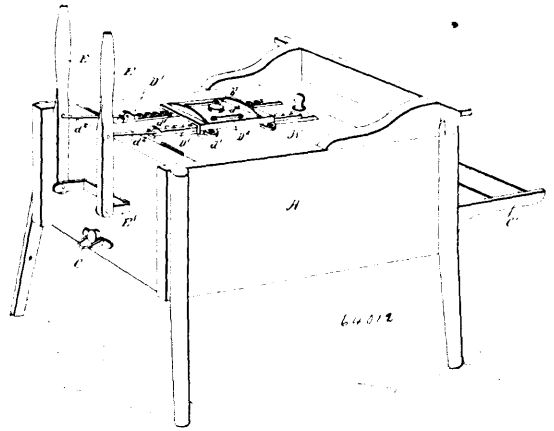
*Claim.*—1st. The combination with the suds box, and rubber, of a cover hinged to said box at one end, arms pivotally connected at the ends to said box and rubber, vertical guides depending from said cover and supporting said arms, and said rubber provided with a stem passing through a slot in said cover, substantially as shown and described. 2nd. The combination with a suds box, and cover, of a rubber pivotally supported on pivoted arms, vertical guides depending from said cover and supporting said rubber through said arms, said rubber provided with a stem passing through a slot in said cover, substantially as shown and described. 3rd. The combination with a suds box, and cover, of a rubber pivotally supported on pivoted arms, vertical guides depending from said cover and supporting said rubber, said rubber provided with a stem passing through a slot in said cover, a horizontal lever fulcrumed to said stem and pivotally supported on arms pivoted to said box and provided with a handle, substantially as shown and described.

**No. 64,012. Washing Machine. (Machine à laver.)**

Mederic Perrault, St. Thomas, Quebec, Canada, 27th September, 1899; 6 years. (Filed 7th April, 1899.)

*Claim.*—1st. A washing machine, comprising a receptacle provided with interior corrugations, an agitator revolvably mounted therein, and means for reciprocating said agitator, substantially as described. 2nd. A washing machine, comprising a receptacle provided with interior corrugations, an agitator revolvably mounted therein, a shaft connected with said agitator and passing through the upper side of the receptacle, and means for reciprocating said shaft, substantially as described. 3rd. A washing machine, comprising a receptacle provided with interior corrugations and having interior vertical ribs at the ends thereof, an agitator revolvably mounted therein, a shaft connected with said agitator and passing through the upper side of the receptacle, a gear wheel fixed to said shaft, a rack bar meshing with said gear wheel and means for reciprocating said rack bar, substantially as described. 4th. A washing machine, comprising a receptacle, a cover therefor, interior corrugations arranged around the sides thereof, a series of vertical ribs arranged in a semi-circle at each end of said receptacle, an agitator revolvably mounted therein, a shaft connected with said agitator and journaled in said cover, a gear wheel rigid with said shaft and arranged on said cover, a rack bar meshing with said

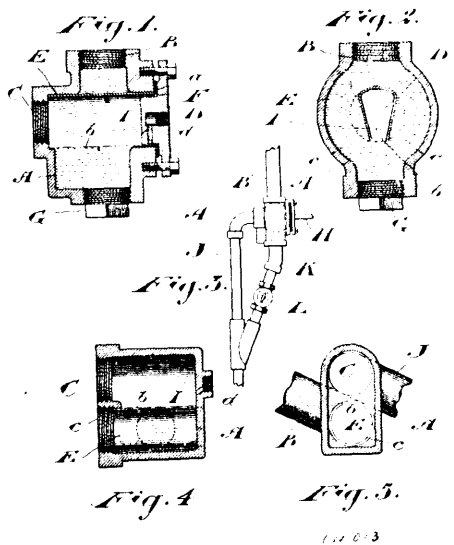
gear wheel and connected with an operating lever, substantially as described. 5th. A washing machine, comprising a receptacle,



a hinged cover therefor, interior corrugations arranged around the sides and bottom of said receptacle, a series of vertical ribs arranged in a semi-circle at each end thereof, an agitator revolvably mounted therein and provided with depending pins, a shaft connected with said agitator and journaled in said cover, a gear wheel rigid with said shaft and arranged on said cover, a rack bar meshing with said gear wheel and connected with an operating lever, a cover plate secured to the top of the hinged cover and enclosing the gear wheel, said cover plate being provided with a guideway for the said rack bar, substantially as described. 6th. A washing machine, comprising a receptacle, a hinged cover therefor, interior corrugations arranged around the sides and bottom of said receptacle, a series of vertical ribs arranged in a semi-circle at each end thereof, an agitator revolvably mounted therein and provided with depending pins, a shaft connected with said agitator and journaled in said cover, the connection between the agitator and shaft being such as to permit a vertical movement of the said agitator upon said shaft, a gear wheel rigid with said shaft and arranged on said cover, rack bars mounted one on each side of the gear wheel and meshing therewith, rods connecting said rack bars with operating handles and adapted to impart a reciprocating motion to said gear wheel, a cover plate secured to the top of the hinged cover and enclosing said gear wheel, said cover plate being provided with guideways for said rack bars, substantially as described.

**No. 64,013. Sander for Rolling Stock.**

(Machine à sabler pour chemins de fer.)



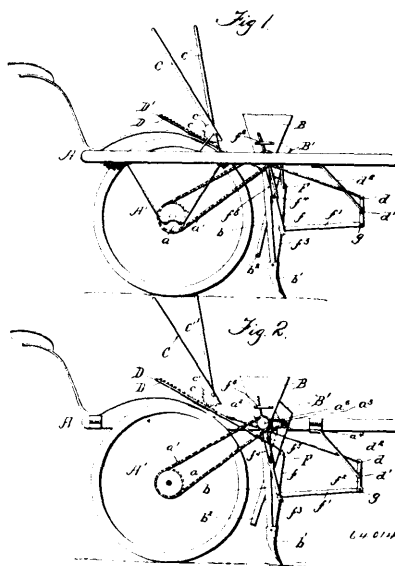
John Bird Wilson, Smith's Falls, Ontario, Canada, 27th September, 1899; 6 years. (Filed 8th April, 1899.)

*Claim.*—1st. As a sander a chamber provided with an inlet and an outlet above the inlet, in combination with an air jet located opposite the outlet and above the inlet, but directed downwardly at an angle to the surface of the sand in the chamber, substantially as and for the purpose specified. 2nd. As a sander a chamber provided

with an inlet and an outlet, and restricted in width above the inlet, in combination with an air jet located opposite the outlet and above the inlet, but directed downwardly at an angle to the surface of the sand in the chamber which is below the outlet, substantially as and for the purpose specified. 3rd. As a sander a chamber provided with an inlet and an outlet, in combination with an air jet located opposite the outlet and above the inlet, but directed downwardly at an angle to the surface of the sand in the chamber which is below the outlet, and a removable shell restricting the width of the chamber above the inlet, substantially as and for the purpose specified. 4th. As a sander a chamber provided with an opening at the top, and an outlet at one side, in combination with a shell open at the bottom and extending completely across the chamber from the outlet but above the bottom of the shell and directed downward at an angle to the surface of the sand in the chamber, which chamber is so shaped as to provide passage ways for the sand on one or both sides of the said shell, substantially as and for the purpose specified. 5th. As a sander the chamber A, shaped as shown and provided with the opening B, the outlet C, and the opening F, in combination with the removable shell E, with openings *b* extending through the chamber from the opening F, to the outlet C, and the removable cap D, closing the opening F, and provided with the air jet I, substantially as and for the purpose specified.

**No. 64,014. Land Roller and Seed Drill.**

(*Rouleau et semoir en lignes.*)

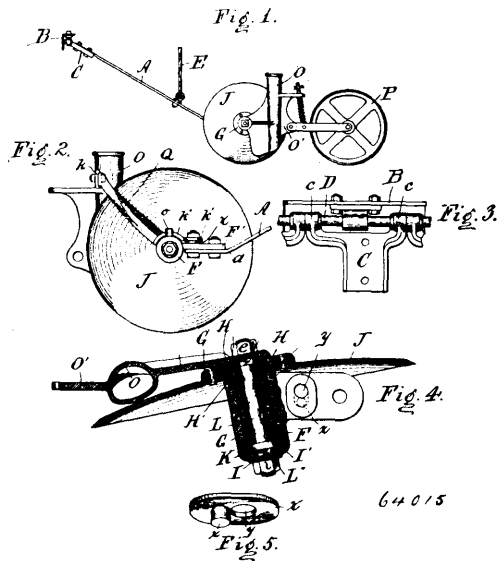


Andrew Robertson, Metcalfe, Ontario, Canada, 27th September, 1899; 6 years. (Filed 11th April, 1899.)

*Claim.*—1st. In a machine of the character described, the combination with a frame, and a roller mounted therein, of a seed drill mechanism carried by said frame, substantially as described. 2nd. In a machine of the character described, the combination with a frame and a roller mounted therein, of a seed drill mechanism carried by said frame, and means connected with said roller and actuated thereby for operating said mechanism, substantially as described. 3rd. In a machine of the character described, the combination with a frame and a roller mounted therein, of a seed drill mechanism, means connected with said roller, and actuated thereby for operating said mechanism, and means whereby the drill may be thrown into and out of operation, substantially as described. 4th. In a machine of the character described, the combination with a frame and a roller mounted therein, of a seed drill mechanism, means connected with said roller and actuated thereby for operating said mechanism, a rod slidably mounted on said frame having an operating handle at one end, and at the other connected with a shaft journaled in the frame, and pivotally connected with said roller, a drill, a rod and link connection between said drill and the frame, and a chain connecting the rod and link with said shaft, substantially as described. 5th. In a machine of the character described, the combination with a frame and a roller mounted therein, of a seed drill mechanism, means connected with said roller and actuated thereby for operating said mechanism, a rod slidably mounted on said frame and having an operating handle, a shaft journaled in the frame and pivotally connected with the said rod, a drill, a rod and link connection between said drill and the frame, a chain connecting the rod and link with said shaft, a second rod slidably mounted on said frame and having an operating handle, a second shaft journaled in the frame, a pitman connecting said shaft with said sliding rod, and connections between said shaft and the drills, substantially as described. 6th. In a machine of the

character described, the combination with a frame and a roller mounted therein, of a seed drill mechanism, means connected with said roller and actuated thereby for operating said mechanism, a rod slidably mounted on said frame having an operating handle, a shaft journaled in the frame, a pitman connecting said shaft with said sliding rod, and connections between said shaft and the drills, substantially as described. 7th. In a machine of the character described, the combination with a frame and a roller mounted therein, of a seed drill mechanism, means connected with said roller and actuated thereby for operating said mechanism, a rod slidably mounted on said frame and having an operating handle, a shaft journaled in the frame and pivotally connected with the said rod, a drill, a rod and link connection between said drill and the frame, a chain connecting the rod and link with said shaft, a second rod slidably mounted on said frame and having an operating handle, a second shaft journaled in the frame, a pitman connecting said shaft with said sliding rod, connections between said shaft and the drills, a hopper mounted in said frame, a tube connection between said hopper and the drill, a slotted guide rod connected with said rod and link, and engaging a shaft passing through said hopper, said guide rod having a bent portion to engage a shoulder on said shaft, a clutch mechanism on said shaft adapted to be operated by said guide rod, substantially as described.

**No. 64,015. Seeding Machine. (Semoir.)**



William G. Munn, Thomas Brennan, Edward Christman, Leverett W. Homire and Thomas Brennan, all of Louisville, Kentucky, U.S.A., 27th September, 1899; 6 years. (Filed 21st April, 1891.)

*Claim.*—1st. In a grain drill having furrow openers consisting of concavo-convex discs rigidly attached to studs on the convex side of said disc, said stud passing through to the concave side and fitting within hubs with drag bars attached only to the concave side of said discs, substantially as and for the purpose described. 2nd. In a grain drill, the furrow openers consisting of a concavo-convex discs attached rigidly to studs on the convex side of said disc, said stud passing through to the concave side and fitting within hubs, flat drag bars attached only to the concave side of said discs, substantially as and for the purpose described. 3rd. In a grain drill, flat spring pressure bars attached to concavo-convex discs only on one concave side, said discs being rigidly attached to studs on the convex side, said stud passing through to the concave side of the disc, with a hub arranged for journaling same and supporting grain spout, substantially as and for the purpose described. 4th. In a grain drill or disc harrow, a single spring pressure drag bar attached to a hub receiving a stud to provide a journal for the disc on the concave side, said stud passing through to the convex side of the disc and rigidly attached thereto, substantially as and for the purpose described. 5th. In a grain drill having furrow openers consisting of concavo-convex discs rigidly attached to a stud on the convex side thereof, said stud passing through and entering a hub on the concave side of the disc, said hub attached to the single drag bar, with the grain receiver or spout attached to the opposite or convex side of the disc, substantially as and for the purpose described. 6th. In a grain drill or disc harrow, a hub attached to a single drag bar and receiving a stud attached to the convex side and passing through the disc and arranged to provide a journal for the disc on the concave side of said disc, a spacing pin with said hub and rigidly clamped at one end of it to receive the stud on the concave side of the disc, substantially as and for the pur-

pose described. 7th. In a grain drill, the single drag bar attached to a hub, a spacing pin rigidly clamped at one end of said hub to receive the stud on the concave side of the revolving disc and to support the grain spout or receiver on the opposite or convex side of the disc, said disc rigidly attached to the stud on the convex side, substantially as and for the purpose described. 8th. In a grain drill, the drag bar attached to a hub, a spacing pin fitting within said hub and rigidly clamped at one end, said pin being threaded at each end to receive clamping nuts and having a small portion at each end square to hold it rigid and prevent it revolving with a collar bearing against internal shoulders at one end of the hub, substantially as and for the purpose described. 9th. In a grain drill, in combination with a hub attached to the drag bar, a spacing pin rigidly clamped within said hub and provided with a collar at one end to bear against the internal shoulders of the hub and a shoulder at the opposite end, so as to hold the disc securely in place but permit it to revolve freely, substantially as and for the purpose described. 10th. In a grain drill, furrow openers, consisting of a concavo-convex disc provided with a hollow stud on its concave side adapted to fit into a hub attached to the drag bar and revolve freely therein, a clamping bolt or spacing pin passing through both the hub and the stud, holding them firmly together but permitting the free revolution of the disc, substantially as and for the purpose described. 11th. In a grain drill, a concavo-convex disc provided on its concave side with a hollow stud adapted to fit within a hub attached to the drag bar, a grain spout or receiver on the opposite or convex side of the disc, all these parts held together by a clamping pin passing through them and rigidly attached to the hub but permitting the free revolution of the disc, substantially as and for the purpose described. 12th. In a grain drill provided with furrow openers, consisting of concavo-convex revolving discs, with fixed or non-revolving scrapers or supports on the concave side of the discs, bolted at one end to the hub attached to the drag bar and at the other end to the grain spout carrier, substantially as and for the purpose described. 13th. In a grain drill or disc harrow, the drag bars attached to the hub of the discs by an adjustable attachment, consisting of the elongated opening or slot to receive the rear bolt in combination with the washer for changing the angle of the disc, substantially as and for the purpose described. 14th. In a grain drill or disc harrow construction, a flat drag bar under spring pressure attached to a hub, said hub receiving a stud rigidly attached to a disc on the convex side and passing through to the concave side thereof, said drag bar attached at one end on the hub on the concave side only of said revolving disc and at the other end pivotally attached to the frame, substantially as and for the purpose described. 15th. In a grain drill, the combination of a grain spout or receiver on the convex side of a revolving disc and attached thereto by a spacing pin passing through the hub, a supporting hub receiving a stud attached on the convex side of the disc on the opposite or concave side of said disc attached to the drag bar, and means for connecting said drag bar pivotally to the frame of the drill, substantially as and for the purpose described. 16th. In a grain drill, the combination of a concavo-convex disc or furrow opener provided with a hollow stud on its concave side revolving within a hub attached to the drag bar and on the convex side a grain spout or receiver having a forwardly extending projection with a square or angular opening to receive the angular portion of a spacing pin, which passes through the hub and the stud of the disc and holds the parts firmly together and in place, substantially as and for the purpose described. 17th. In a grain drill having furrow openers, consisting of concavo-convex discs carrying on the same journals grain receiver or spout, said spout provided with a lug on its rear side to which may be bolted a bracket to guide and control the pressure wheels, substantially as and for the purpose described. 18th. In a disc furrow opener for grain drills, a concavo-convex disc provided with a hollow trunnion extending through an opening in the centre of the disc and fitting in a box hub, the parts held together by an ordinary clamping bolt provided with a sleeve, substantially as and for the purpose described. 19th. In a disc furrow opener for grain drills, a conduit for guiding the grain into the furrow opened by the disc provided with a shield extending below the axis of the disc, in combination with a supporting arm or brace extending from the conduit to a point on the drag bar, substantially as and for the purpose described. 20th. In a disc furrow opener for grain drills, a conduit for guiding the grain, provided with a triangular or three-point support, these points being at the axis of the disc, the upper portion of the conduit, and a point on the drag bar forward of the disc, substantially as and for the purpose described. 21st. A disc furrow opener for grain drills, provided with a conduit, one portion of which is attached at the axis of the disc, in combination with the supporting rod E, and the clip or lug on the drag bar provided with a shoulder f, substantially as and for the purpose described. 2nd. In a grain drill, the combination with the frame, runners and drag bars pivoted to the frame, of flat spring bars secured at the forward end of the drag bars and extending back toward the shoe, pivotal connection at the other end of the spring with a rock shaft, and bearing plate for the spring bar on the drag bars between the ends of said spring bar, whereby the rocking of the shaft will cause the spring bars to exert pressure on the runners, substantially as and for the purpose described. 23rd. In a grain drill, the combination with the frame and runner, of a hanger, a pair of pivot points on opposite sides thereof, and laterally sprung drag bars secured to the runner at one end and making pivotal con-

nection with said pivots on the hanger at the other end, said pivots on the hanger being located between the laterally sprung ends of the drag bars, substantially as and for the purpose described. 24th. In a grain drill, the combination with the frame and runners, of a hanger and pivot connections thereon for the drag bars, of a downwardly extending stud on the hanger, and flat spring bar secured thereto, with bearing surface for the spring bar between the forks of the drag bars, substantially as shown and described. 25th. In a grain drill, the combination with the runners, drag bars and spring to supply spring pressure thereto, of a cam piece pivoted between the drag bars at their forward ends and provided with a series of bearing surfaces for the spring at unequal distances from the pivotal centre thereof, substantially as shown and described. 26th. In a grain drill, the combination, with the frame runners feed tubes, and drag bars pivoted to the frame and springs secured at the forward end of the drag bars to supply pressure thereto, of bifurcated connecting links pivoted to the springs between the feed tubes and pivoted ends of the drag bars and extending back on either side of said feed tubes, projections on the feed tubes to be engaged thereby, and arms on a rock shaft pivoted to said links whereby the rocking of the shaft will raise said feed tubes and runners from the ground, substantially as shown and described. 27th. In a grain drill, the combination with the drag bars, runners and covering wheels, springs to supply spring pressure to said runners and wheels, rock shaft, and links connecting said rock shaft and said runner springs, of arms to which said covering wheels are journaled and pivotal connection therewith at the forward end of said connecting links, substantially as shown and described. 28th. In a grain drill, the combination with the drag bars, runners and covering wheels, springs to supply spring pressure to said runners and independent springs for the covering wheels, of arms to which said wheels are journaled, and pivotal connection therewith at the outer end of the runner springs, rock shaft and links connecting said rock shaft and said runner springs, substantially as shown and described. 29th. In a grain drill, the combination with the frame, runners and covering wheels, of flat spring bars secured to the frame between the forward end of the drag bars and extending back toward the shoe, links pivotally connecting said spring bars to a rock shaft, and arms pivotally connecting said covering wheels to the front end of said connecting links, substantially as shown and described. 30th. In a grain drill, the combination with springs for the runners and covering wheels pivotally connected with said springs between the feed tubes and pivotal end of the drag bars, of links extending back on either side of said feed tubes with lugs on said links and rock shaft connected with said links whereby the rocking thereof will lift said runners and covering wheels from the ground, substantially as shown and described. 31st. In a shoe for grain drills, the combination of a seed tube having a forwardly extending foot, an independent heel piece removably attached to said foot or shank independent of the side plates, substantially as shown and in the manner described. 32nd. In a shoe for grain drills, the combination of a seed tube having a forwardly extending foot mortised on its lower side, with an independent heel piece provided with a tenon adapted to fit in said mortise, substantially as and for the purpose described. 33rd. In a shoe for grain drills, the combination of a seed tube having a forwardly extending foot mortised or recessed on its lower side to receive an upwardly extending tenon on the heel piece and a bolt or equivalent fastening for rigidly locking the two parts together, substantially as and for the purpose described. 34th. In a shoe for grain drills, the combination of a seed tube having a forwardly extending foot, an independent removable heel piece, and side plates riveted or secured to the foot and adapted to fit upon the heel piece, substantially as and for the purpose described. 35th. In a shoe for grain drills, having a removable heel piece, a seed tube having a forwardly extending foot adapted to receive side plates all of whose edges are straight, substantially as shown and in the manner described. 36th. In a shoe for grain drills, the combination of a seed tube therefor, an independent heel piece secured to or held by said seed tube from longitudinal play, independent of the side plates, substantially as and for the purpose described. 37th. In a shoe for grain drills, the combination of an independent removable heel piece adapted to be attached directly and independently of the side plates, to the foot of the seed tube, substantially as shown and in the manner described. 38th. In a shoe for grain drills, the combination of a seed tube having a forwardly extending foot and an independent heel therefor, said runner being provided with interlocking tenons with recesses in said foot to receive the same, the tenons on the heel grooved to receive the head of a bolt to lock the parts together, said tenons formed to leave a shoulder to receive the lower edge of the side plates, substantially as and for the purpose described.

#### No. 64,016. Snow Plough. (*Charrue à neige.*)

Samuel Grant Bush, Charlotte, Vermont, U.S.A., 27th September, 1899; 6 years. (Filed 24th April, 1899.)

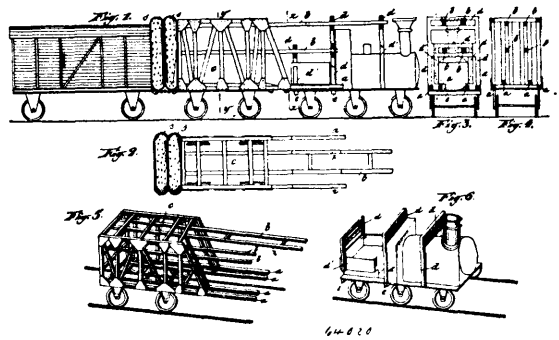
*Claim.*—1st. The combination with the body or platform and the runners, of the plough 4, the hand levers 6 6 fulcrumed in the platform, and the parallel rods 5 5 connecting the plough and levers, substantially as and for the purpose set forth. 2nd. The combination with the platform and the front and rear runners of the plough 4, the hand levers 6 6 fulcrumed in the platform, the rods 5 5 connecting the plough and levers, the extension wings 12 12 hinged to



said section of track with a stationary track. 4th. The combination of a car carrying a section of railway track and an incline having a hinge joint between its ends and adapted to connect said section of track with a main track. 5th. The combination of a car carrying a section of track, means for forming an incline extending from said section of track down to a main track and connecting them, and a derrick carried by said car, provided with a heel holder. 6th. The combination in a derrick of a boom and a heel holder attached thereto for catching the heel of logs or beams lifted by the apparatus. 7th. In a derrick boom the combination of a pair of channel beams arranged back to back, and plates above and below the beams attached to their flanges and connecting the beams together. 8th. The combination in a car loading apparatus of a section of railway track carried by the car, means for connecting each end of said section of track with a main track by forming inclines leading from one to the other, and means carried by said apparatus, for drawing cars up to and over the section of track carried by the apparatus. 9th. The combination in a car loading apparatus of a section of railway track carried by the apparatus means for forming inclines connecting said section of track with main track, and means for propelling the apparatus upon a main track. 10th. The combination in a car loading apparatus carrying a section of railway track, and means for connecting it with a main track, of two supporting trucks, each having a pair of wheels connected by an axle, a source of power carried by the apparatus and means for transmitting motion therefrom to said axles and thence to the wheels connected thereby. 11th. The combination in a car loading apparatus of a car, a section of railway track carried by the car, means for connecting said section of track with a main track, a pair of spuds, one on each side, and means for raising and lowering said spuds. 12th. The combination in a car loading apparatus of a car, a section of railway track carried by the car, means for connecting said section of track with a main track, a pair of spuds carried by the car, means for raising and lowering said spuds, and means for drawing cars up over the section of track carried by said apparatus. 13th. In a car loading apparatus a car, a spud having a shoe connected with its lower end by means permitting it to be inclined, means connecting the car and spud, and means for elevating and lowering the spud. 14th. the combination in a car loading apparatus of a car, a section of railway track carried by the car, means for connecting each end of said section of track with a main track, a pair of spuds, and means for elevating and lowering each of said spuds independently. 15th. The combination in a car loading apparatus of a stationary track, a car loading apparatus upon said track, carrying a section of track, and inclines for connecting said section of track with the main track, one of said inclines being jointed between its ends. 16th. The combination in a car loading apparatus of a car carrying a section of railway track, and inclines for connecting said section of track with a main track, one of said inclines containing two sections of railway track hinged to each other, and said incline being provided with a support between its ends. 17th. The combination in a car loading apparatus of a car carrying a section of railway track and an incline for connecting said section of track with a main track, said incline containing two sections of track hinged together and the rails of each section being connected together by a cross piece adapted to rest upon the rails of a main track and assist to support the incline when in its lowest position. 18th. The combination in a car loading apparatus of a car, a section of railway track carried by the car, and an incline for connecting said section of track with a main track, and containing four sections of rails, two on each side, connected by hinged joints, cross pieces connecting each pair of rails near their respective outer ends, and a bridge for lifting the outer end of the incline which brings the strain first upon the outer section thereof and subsequently divides it between the outer and inner section. 19th. In a loading apparatus, the incline M having sections of rails M<sup>1</sup> and M<sup>2</sup> connected by hinged joints, the cross pieces M<sup>3</sup> and M<sup>4</sup> and the bridge N having the parts n and n<sup>2</sup> and the ring n<sup>1</sup>. 20th. The combination in a loading apparatus of a derrick having a swing circle and a brake which bears upon said circle when applied. 21st. The combination of a swinging circle having a flange p<sup>5</sup> and a brake S having jaws s adapted to grip said flange, and means for operating said brake, substantially as described. 22nd. In a loading apparatus, the body bolster D composed of channel beams arranged on edge with their webs on the outside, and top and bottom plates rivetted to the flanges of said beams. 23rd. The combination of a spud carrying a rack, a worm, a toothed pinion for operating the rack and means for transmitting power from the worm to the pinion. 24th. The combination of a spud carrying a rack, and provided at its lower end with a shoe, guides for said spud, and a toothed pinion for operating said rack, the downward extension of the rack below the pinion when its shoe is in its lowest position being shorter than the distance from the spud shoe to the lowermost guide of said spud so that the pinion will run out of mesh with the rack before the shoe reaches the guide. 25th. The combination of a bolster formed of channel beams and top and bottom plates, an upright formed of a channel beam and gusset plates connecting the bolster and upright. 26th. The combination with the shafts V, W<sup>3</sup> and X<sup>5</sup>, the winding drums thereon, the clutches for making said drums fast to said shafts, means for transmitting motion to said shafts, means for transmitting motion from one of said shafts to driving wheels, and means for transmitting motion from the shaft X<sup>5</sup> to means for anchoring the apparatus, substantially as described.

No. 64,020. Railway Safety Van.

(Fourgon de sûreté de chemin de fer.)

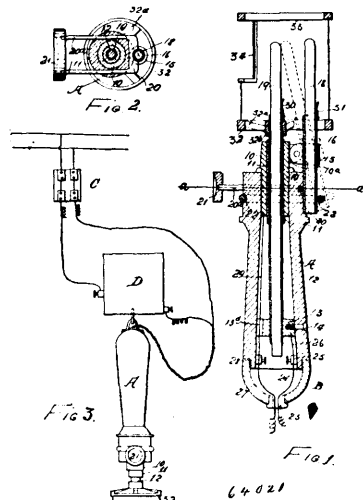


Julius Emden, Hamburg, Germany, 28th September, 1899; 6 years. (Filed 22nd February, 1899.)

Claim.—In a rigidly constructed safety van, truck or waggon for taking up the jerks produced by collisions and sudden braking of railway trains, horizontally projecting beams or girders running along the sides of the engine frame and extending through suitable openings provided in said engine frame, and a series of similar beams or girders arranged at the central and upper part of the safety van and extending over the engine in combination with cross-beams arranged under the first mentioned beams or girders, and suitable supports secured on the engine, substantially as and for the purpose specified.

No. 64,021. Electric Cigar Lighter.

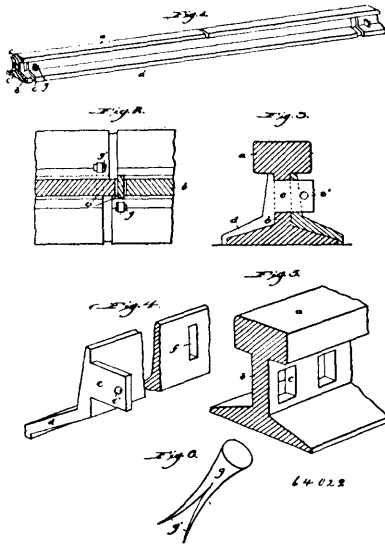
(Appareil électrique à allumer les cigares.)



Haden Herbert Bales, Vancouver, British Columbia, Canada, 28th September, 1899; 6 years. (Filed 27th January, 1899.)

Claim.—1st. In an electric cigar and pipe lighter, consisting of a suitable handle A having an orifice therethrough for receiving the current conveying apparatus, in combination with a bushing 10 fitted into the forward end of said handle, an insulator 11 within such bushing, a sleeve 12 within such insulator and a bush 13 securing the inner end of said sleeve 12 and a carbon 19 within said sleeve, of a clasp 15 pivoted to a projecting lug 10<sup>a</sup> on the bushing 10, a sleeve 16 held by said clasp, and a carbon 18 normally held parallel with the carbon 19, and means for swinging the carbon inward and connecting its forward end with the carbon 19, as and for the purpose set forth. 2nd. In combination with a cigar lighter having a suitable handle and carbons 18 and 19 mounted thereon, one of which is pivotally fixed and susceptible of being contacted with the other carbon, of a guard or shade consisting of a frame or gallery 32 secured to the sleeve of the carbon 19, a ring 33 placed at some distance therefrom, and a mica-shell connecting the said frame 32 and ring 33 together, and an aperture 34 in one side of said shell, as and for the purpose set forth.

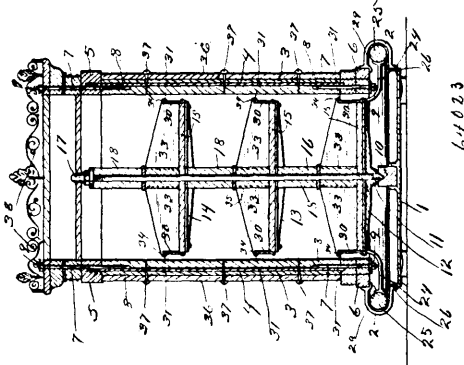
No. 64,022. Railway Rail Tie. (Plaque pour traverses de chemin de fer.)



Ernest John Schindehutte, McKee's Rocks, Pennsylvania, U.S.A., 28th September, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. In a rail joint, the combination of a rail, of fish plates engaging the web of the rail, said fish plates being provided with a flange conforming to the base of the rail, said fish plates being also provided at one end with an aperture, the opposite end with a transversely extending lug, said lug passing through an aperture formed in the web of the rail at or near the centre thereof, and through the aperture of the wedge or key for securing the fish plates in position, substantially as shown and described. 2nd. The combination in a rail splice, of two fish plates adapted to have a pair of bolts inserted therethrough with the ends thereof on opposite sides, substantially as set forth. 3rd. The combination in a rail splice, of two fish plates having apertures arranged therein, a pair of bolts adapted to be inserted in said apertures, the heads thereof countersunk in one of the fish plates, a pair of bolts adapted to be inserted through the other aperture, the heads thereof countersunk in the opposite fish plate, and a key adapted to secure said bolts in position, substantially as set forth. 4th. In a rail splice, a pair of fish plates adapted to engage the web of the rail, said fish plates being provided with a series of apertures, a pair of bolts adapted to have the heads thereof countersunk in one of the fish plates, a pair of bolts adapted to have the heads thereof countersunk in the opposite fish plate, and a wedge shaped key adapted to secure the said bolts in position, substantially as set forth. 5th. In a rail splice, a pair of fish plates adapted to engage the web of the rail, said fish plates being provided with a series of apertures, a pair of bolts adapted to have the heads thereof countersunk in the opposite fish plate, a wedge shaped key adapted to secure the said bolts in position, said key having one of the ends thereof split, substantially as set forth.

No. 64,023. Show Case. (Caisse d'étalage.)

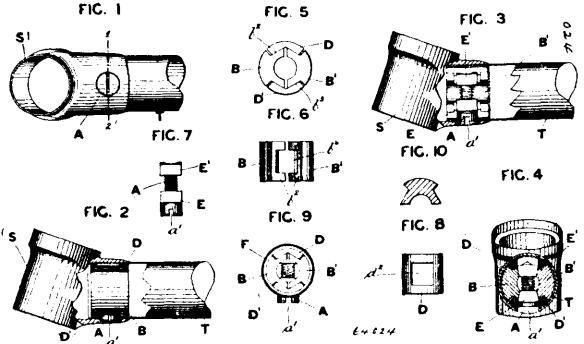


Benjamin C. Bradley, Alliance, Ohio, U.S.A., 28th September, 1899; 6 years. (Filed 5th January, 1899.)

Claim.—1st. The combination of a bottom provided with grooves 19 and 20, the grooves 20 being curved and located to one side and

adjacent to a portion of the groove 19, a fixed frame provided with panels, a sliding door provided with pins 22 and 23 upon its ends, and a plate, all arranged substantially as and for the purpose specified. 2nd. The combination of a base, a fixed case, a series of shelves located within the fixed casing, said shelves provided with an annular band, the rod 16, thimbles located upon said rod and radial partitions located upon the shelves, substantially as and for the purpose specified.

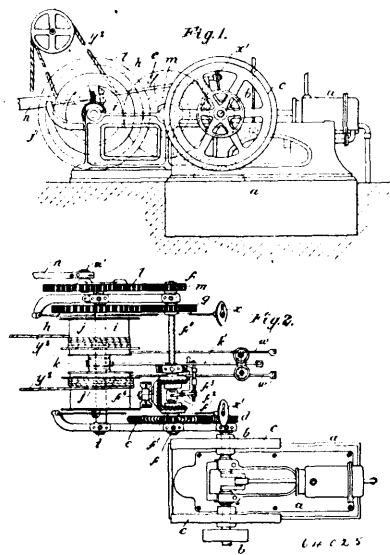
No. 64,024. Junction of Frames for Cycles, Motor Cars, etc. (Jontion de cadre pour cycles, moteur, etc.)



Joseph Howard Kirk, Jessamine Villa, and John William Jeffs 56 Cyril Road, Small Heath, both of Warwick, England, 28th September, 1899; 6 years. (Filed 28th December, 1898.)

Claim.—1st. The improvements in the junctions of the cycle, motor car, and other frames, applicable also to analogous purposes, consisting of four segmental blocks combined and operated upon by a screw acting upon one of two tapered nuts the action of which separates the two blocks B and B' which in their movement expel outwardly the other two segmental blocks D and D' thus enlarging the tube into the socket, substantially as herein set forth and as shown upon the drawings. 2nd. Making the junctions of a tube inside a socket by means of four expanding blocks operating upon the inside of the tube so as to enlarge it by means of a cross screw operating upon a taper or conical nut or nuts, substantially as herein set forth and shown. 3rd. In junctions which are the subject of the above claims, two main blocks B and B' having inclined planes on their equivalent wedged surface operating upon like inclined planes or wedged surfaces in the supplemental blocks D and D' for the purpose of expanding the tube in the socket by means of a screw operating on a nut or nuts or their equivalents, substantially as herein set forth and as shown.

No. 64,025. Pumping and Winding Machine. (Machine à pomper et enrouler.)



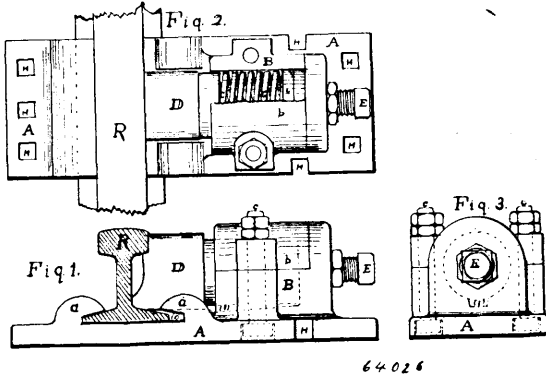
John Symington, 260 Bath Street, Glasgow, Scotland, 28th September 1899; 6 years. (Filed 11th January, 1899.)

Claim.—In pumping and winding machinery, the combination of a double acting pump, composed of two cylinders connected at the

top and with a common pressure supply pipe, each cylinder provided with suitable valve chambers and valves therein, of tubular rods and plungers connect-d with said cylinders, lift rods connected with said tubular rods, bell cranks connected with and operating said lift rods, drive rods connected with said bell cranks and adapted to alternately operate the same, a drive wheel for operating said drive rods, winding machinery consisting of a pair of drums carrying cables, clutch machinery whereby said drums may be engaged and released, an engine for driving said pumping and winding machinery, and differential gearing placed between said engine, the winding machinery and the pumping machinery whereby they may be driven at different speeds, substantially as set forth.

**No. 64,026. Railway Curve Cushion Chairs.**

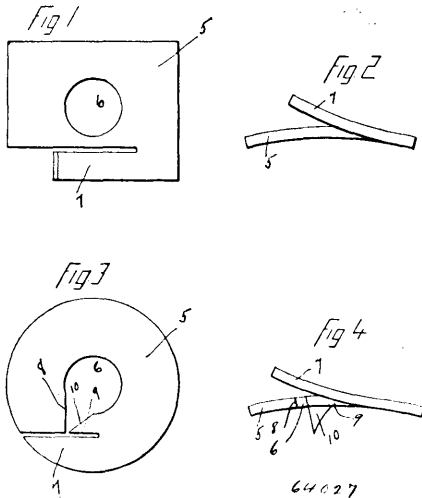
(Coussinet pour courbes de chairs de chemin de fer.)



Jacob Egbert Reeves, Yarmouth, Nova Scotia, Canada, 28th September, 1899; 6 years. (Filed 22nd February, 1899.)

*Claim.*—1st. A railway chair, forming an elastic cushion for the rail carried thereon, by means of the combination of spring C, follower D, spring box B, and tail screw E, with chair A, as shown by drawings herewith and for the purpose set forth. 2nd. The spring C, in combination with follower D, spring box B, and tail screw E, as shown. 3rd. The follower D, in combination with spring C, spring box B, and trail screw E, substantially as shown and described and for the purpose set forth.

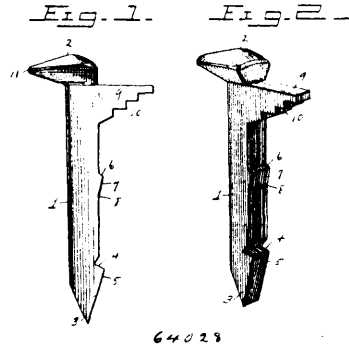
**No. 64,027. Nut Lock.** (Arrête écrou.)



Harry V. Padfield and John W. Cornelius, Both of St. Louis, Missouri U.S.A., 28th September, 1899; 6 years. (Filed 16th February, 1899.)

*Claim.*—1st. A nut lock consisting of a plate having an approximately central opening curved to elevate its central portion and a tongue formed integral with said plate and curved in the opposite direction from the curve of the plate, the free end of said tongue being elevated above said plate, substantially as specified. 2nd. A nut lock consisting of a plate having an approximately central opening, a tongue formed integral with said plate and curved upwardly there being a slit extending from the inner edge of said tongue into said opening, thus forming a second tongue between said opening and the first mentioned tongue and the point of said second tongue being turned downwardly, substantially as specified.

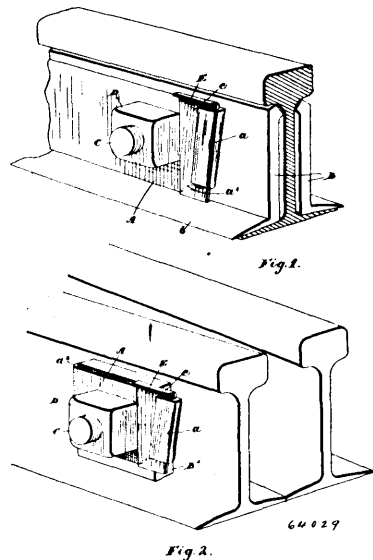
**No. 64,028. Railway Spike.** (Cheville de chemin de fer.)



Dennis Butler, Watson, Illinois, U.S.A., 28th September, 1899; 6 years. (Filed 22nd February, 1899.)

*Claim.*—In a railroad spike, a shank having a tapering point provided with a head 2, projecting to a tapering end at right angles to said shank, an arm 9, extending in an opposite direction and cut away on its under side to form steps 10, a shoulder provided midway between the extremities and at the rear of said spike and a similar shoulder at the rear and top of said tapering point, substantially as shown and described.

**No. 64,029. Nut Lock.** (Arrête-écrou.)

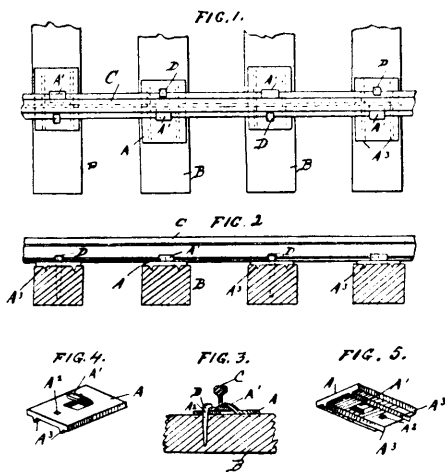


George Henry Layng, Havelock, Ontario, Canada, 28th September, 1899; 6 years. (Filed 22nd February, 1899.)

*Claim.*—1st. A nut lock comprising a plate designed to fit to the inside of the nut and through which the bolt extends, a retaining lip at one edge of the plate and a key designed to fit within the lip and abut the edge of the nut and inner side of the lip, as and for the purpose specified. 2nd. A nut lock comprising a plate designed to fit to the inside of the nut and through which the bolt extends, a retaining lip at one edge of the plate inclined so as to be closer to the nut at the bottom and a wedge shaped key designed to fit within the lip and abut the edge of the nut and inner side of the lip, as and for the purpose specified. 3rd. A nut lock comprising a plate designed to fit to the inside of the nut and through which the bolt extends, a retaining lip at one edge of the plate and a key designed to fit within the lip and abut the edge of the nut and inner side of the lip and having a lifting lip at the top of the key, as and for the purpose specified. 4th. A nut lock comprising a plate designed to fit to the inside of the nut and through which the bolt extends, a retaining lip at one edge of the plate shorter than such edge, a recess cut out of the plate beneath the lip and a key designed to fit within the lip and abut the edge of the nut and inner side of the lip, as and for the purpose specified. 5th. A nut lock comprising a plate designed to fit to the inside of the nut and through which the bolt extends, a retaining lip at one edge of the plate, a key designed to fit within the lip and abut the edge of the nut and inner side of the lip and means such as an inwardly projecting lip to prevent the plate from turning, as and for the purpose specified.



No. 64,030. **Railway Tie Plate.** (*Plaque de traverse de chemin de fer.*)

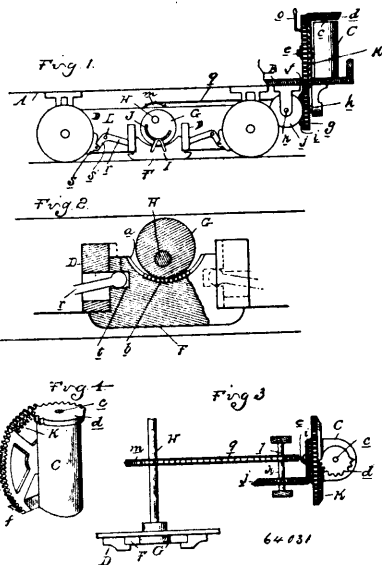


64030

William John Allin, Clarendon, Arkansas, U.S.A., 28th September, 1899; 6 years. (Filed 5th April, 1899.)

*Claim.*—1st. A railroad tie plate, consisting of a rectangular plate, having a turned up lip cut from the body of the plate and designed to engage the base flange of a rail, an aperture for a spike in alignment with the lip, and two parallel V-shaped ribs located on the reverse side of the plate from the lip, extending from end to end of the plate near the side edges thereof, and adapted to be embedded in the tie lengthwise of the grain, substantially as described.

No. 64,031. **Car Brake.** (*Frein de chars.*)



64031

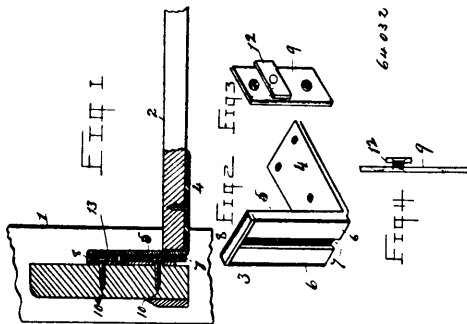
Franzis M. Eggert, Detroit, Michigan, U.S.A., 28th September, 1899; 6 years. (Filed 8th March, 1899.)

*Claim.*—1st. In a brake mechanism, the combination with the car truck, of a track shoe mounted thereon, intermediate the wheels for reciprocation, and means for moving the shoe into and out of engagement with the rail. 2nd. In a brake mechanism, the combination with the car truck, of a track shoe mounted thereon intermediate the wheels for reciprocation, a cam adapted to bear against and operate the shoe into and out of engagement with the rail. 3rd. In a brake mechanism, the combination with the car truck, vertical guides thereon intermediate the wheels, a track shoe slidingly engaging the guides, a cam bearing against and adapted to reciprocate the shoe, and means for operating the cam to move the shoe into and out of engagement with the rail. 4th. In a brake mechanism, the combination with the car truck, vertical guides thereon intermediate

the wheels, a track shoe slidingly engaging the guides, a cam arranged above and in proximity to the shoe, a roller bearing interposed between the said cam and said shoe, and means for operating the cam to move the shoe into and out of engagement with the rail. 5th. In a brake mechanism, the combination with the motor and its rheostat, of the track shoe, an actuating device, and connections between said actuating device and the rheostat and track shoe, whereby upon movement of said actuating device the rheostat and track shoe will be operated. 6th. In a brake mechanism, the combination with the motor and its rheostat, of the track shoe, an actuating device, and connections between said actuating device, and the rheostat and track shoe whereby upon movement of said actuating device the rheostat and track shoe will be successively operated. 7th. In a brake mechanism, the combination with the motor and its rheostat, of the track shoe, a segmental gear wheel, a gear connection between said gear wheel and the rheostat, and a drive connection intermediate said gear wheel and the track shoe, whereby upon movement of the gear wheel in either direction, the track shoe and rheostat will be successively operated. 8th. In a brake mechanism, the combination with the motor and its rheostat, of the track shoe, a segmental gear wheel connected to the rheostat, a cam adapted to bear against and reciprocate the track shoe, and a gear connection between the segmental gear wheel and the cam, substantially as and for the purpose described. 9th. In a brake mechanism, the combination with the car truck, vertical guides thereon intermediate the wheels, a track shoe slidingly engaging the guides, a cam bearing against the shoe, a link connection between said cam and shoe, and means for operating the cam to move the shoe into and out of engagement with the rail. 10th. In a brake mechanism, the combination with the car truck, of a track shoe mounted thereon intermediate the wheels for reciprocation, brake levers pivoted to the truck in proximity to each wheel, a loose connection between each lever and the track shoe, and means for moving the shoe into and out of engagement with the rail.

No. 64,032. **Stays for Bed Slats.**

(*Lien pour planches de lits.*)

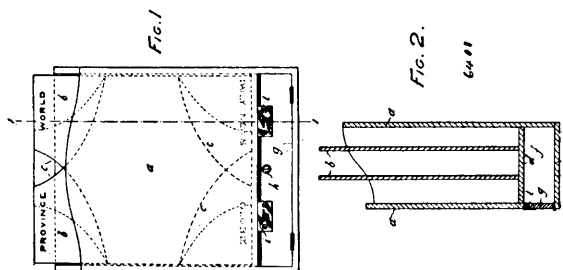


64032

Maria Richardson, Helmick, Kansas, U.S.A., 28th September, 1899; 6 years. (Filed 15th March, 1899.)

*Claim.*—In a bedstead, the combination with the slat, the angle stay secured to the end thereof formed with a vertical portion, two inwardly extending flanges with a central slot between the inner edges and forming a recess open at the lower end, and the transverse portion closing the upper end of said recess and its edges projecting beyond said flanges and engaging with the upper end of the plate secured to the side rail, of the side rail, the plate secured thereto, the rectangular lug engaging with the recess in the stay, and the rivet securing said lug to the plate, substantially as described.

No. 64,033. **Vending Box.** (*Boîte de vente.*)



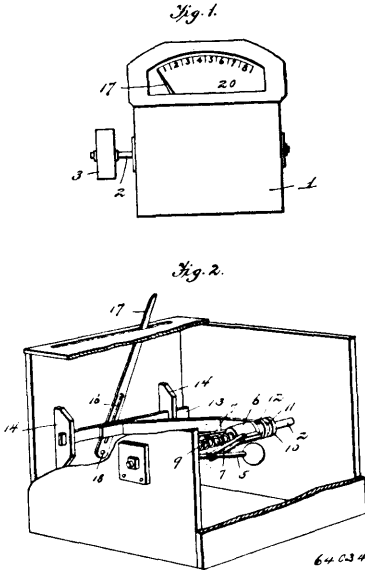
64033

Arthur James Kappela and James Walker, both of Vancouver, British Columbia, Canada, 28th September, 1899; 6 years. (Filed 21st March, 1899.)

*Claim.*—In an article of manufacture, the combination with a box having an open receptacle *a*, detachable tablets or dividing boards *b* arranged in said receptacle, the opposite ends of said tablets being reduced, of a closable box *f* beneath the open recep-

tacle, a hinged door *g* for gaining access to said box, and slotted apertures *i* for inserting coins into said box, substantially as and for the purpose set forth.

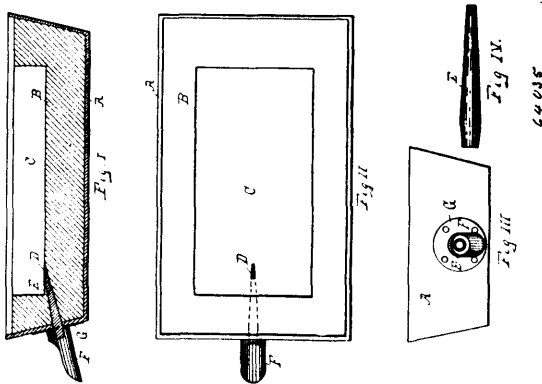
**No. 64,034. Speed Indicator.** (*Indicateur de vitesse.*)



Linn Compton, Staples, Minnesota, U.S.A., 28th September, 1899; 6 years. (Filed 23rd March, 1899.)

*Claim.*—1st. In a speed indicator, the combination with a rotating shaft, of a collar fast thereon, weighted arms pivotally connected to said collar, a sliding runner on said shaft having a linked connection with the weighted arms and provided with a grooved collar, a spiral spring extending around said shaft and interposed between the stationary collar and movable runner, a slide bar having a rigidly attached and laterally projecting fork engaging the grooved collar, a dial, and a pivoted indicator arm moving across said dial and having a pin and slot connection with said slide bar, substantially as described. 2nd. In a speed indicator, in combination, a casing, a rotating shaft journaled therein, a stationary collar, a runner slidably mounted on said shaft and having a grooved collar, links connecting said runner and weighted arms, a spiral spring surrounding said shaft between the stationary collar and runner, a slide bar mounted within the casing, and having a rigidly attached fork which engages the grooved collar of the runner, a dial, a pivoted indicator arm operating before the dial and provided with a longitudinal groove or slot, and a stud on the slide bar engaging and working in the groove in the indicator arm, all arranged for joint operation, substantially as described.

**No. 64,035. Aluminum Reducing Pots and Tapping Apparatus.** (*Marmite à réduire l'aluminium et appareil à mettre en perç.*)

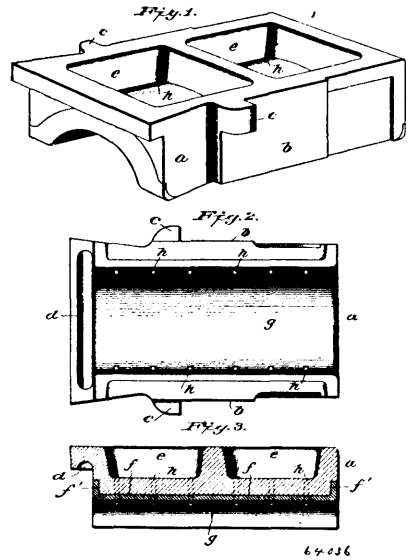


Andrew Dickey, Buffalo, New York, U.S.A., 28th September, 1899; 6 years. (Filed 11th April, 1899.)

*Claim.*—1st. A reduction pot for the reduction of aluminum, provided with a taper tap hole and a wooden or charcoal plug fitted to said taper, and means for excluding said plug from contact with air, substantially as and for the purposes set forth. 2nd. A reduc-

tion pot for the reduction of aluminum, provided with a tap hole, a wooden or charcoal plug fitting into said tap hole, and means for preventing oxidation of said plug, substantially as and for the purpose set forth. 3rd. In an aluminum reduction pot, the combination of a pot provided with a tap hole, with a wooden or charcoal plug removably inserted therein, and a coating of clay or equivalent material for excluding the exposed end of said plug from the air, substantially as and for the purposes set forth. 4th. In an aluminum reduction pot, the combination of a pot provided with a taper tap hole, with a taper wooden or charcoal plug, a plastic cap covering the exposed portion of said plug, and a spout surrounding the exterior opening of said tap hole, substantially as and for the purpose set forth.

**No. 64,036. Bearing and Wedge for Car Axle Boxes.** (*Coussinet et coin pour boîtes à graisse de chars.*)



Thomas Mason, Montreal, Quebec, Canada, 28th September, 1899; 6 years. (Filed 17th April, 1899.)

*Claim.*—1st. A combined bearing and wedge or key for car axle boxes, comprising a shell of cast or other suitable metal, and a facing thereof of antifriction metal, substantially as described. 2nd. A combined bearing and wedge or key for car axle boxes, comprising a shell of cast or other suitable metal, such as steel, having its lower face formed and shaped substantially to the form and contour of the journal of the axle, and provided with a facing of antifriction metal, substantially as described. 3rd. A combined bearing and wedge or key for car axle boxes, having a shell-like body provided with a suitable number of cavities in its upper portion and a facing of antifriction metal, the cavities being adapted to receive a lubricant, and holes extending from such cavity or cavities to and through the facing, substantially as described. 4th. As an improved article of manufacture, a steel shell faced with suitable antifriction metal and constructed and arranged to replace the bearing and wedge or key of a car axle box, substantially as described.

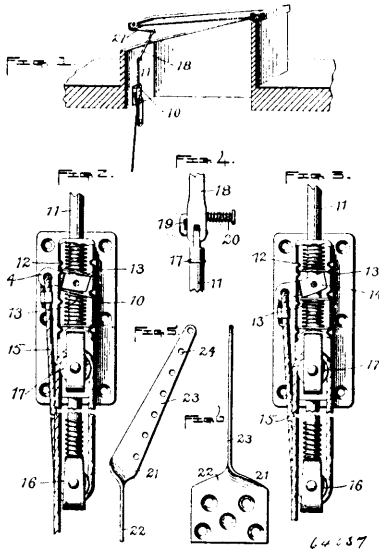
**No. 64,037. Sky-light Lifter.**

(*Appareil à ouvrir les lucarnes.*)

Samuel I. Howard, Worcester, Massachusetts, U.S.A., 28th September, 1899; 6 years. (Filed 15th May, 1899.)

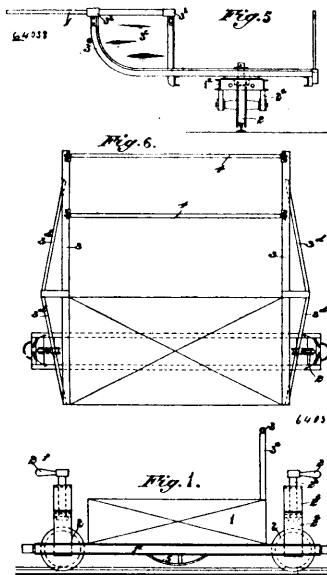
*Claim.*—1st. In a sky-light lifter, the combination of a slide, a frictional catch for said slide, a releasing lever, and a flexible cord or connection connected to simultaneously operate the releasing lever and slide, so that a straight downward pull or tension on the cord will release the catch and shift the slide, and so that when the cord is slackened, the catch will automatically secure the slide in its adjusted position, substantially as described. 2nd. In a sky-light lifter, the combination of a slide, a frictional catch comprising tilted plates, and springs for normally holding said plates in engagement with the slide, a releasing lever for said plates, pulleys journaled on the slide at a stationary point respectively, an operating cord secured to the releasing lever and passing over said pulleys, so that a straight pull or tension on the cord will release the catch and shift the slide, and so that when the cord is slackened the catch will automatically secure the slide in its adjusted position, substantially as described. 3rd. The combination of a sky-light, a sky-light lifter, and a detachable connection between the sky-light

and its lifter for permitting the sky-light to be thrown back as desired, substantially as described 4th. The combination of a sky-



light, a sky-light lifter, and a connecting piece extending in from the bottom bar of the sky-light to receive a connection from the sky-light lifter, substantially as described.

**No. 64,038. Railway (Chemin de fer.)**

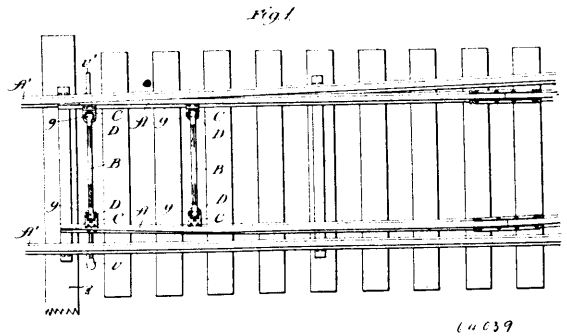


The Monorail Portable Railway Company, 22-23 Lawrence Pountney Lane, London, England, assignee of Henri Jules Caillet, 39 Rue Lafayette, Paris, France, 29th September, 1899; 6 years. (Filed 9th February, 1899.)

*Claim.*—1st. A car for a single rail railway, comprising a car body supported at its ends on centrally arranged wheels each mounted to turn about a vertical axis, substantially as herein described for the purpose specified. 2nd. A car for a single rail railway comprising a car body, and two centrally arranged wheels located one at the front and the other at the rear of the car body so as to support the latter lengthwise between them on the single line, each of said wheels being mounted to turn about a horizontal and a vertical axis, substantially as herein described. 3rd. A car for a single rail railway comprising a car body, two centrally arranged wheels located one in front of and the other behind the car body, and each adapted to rotate about a horizontal axis and to swivel about a vertical axis and springs for yielding supporting said car body upon said wheels, substantially as described. 4th. A car for a single rail railway comprising a car body, two centrally arranged carrying wheels, each mounted to rotate about a horizontal axis, a support or housing for each of the wheel axis, vertical axles for said supports adapted to

permit of said wheel supports or housings to turn in a horizontal direction about a vertical axis, and means for supporting said vertical axles and maintaining them in a vertical position, substantially as described. 5th. A car for a single rail railway comprising a car body, two centrally arranged carrying wheels for said car body, each of said wheels being rotatably mounted upon a horizontal axle, a support for each of said axles, vertical axles connected to and rotating with said supports, means to support said vertical axles and means whereby said supports with wheels can be turned in a horizontal direction, about vertical axes by hand, substantially as described. 6th. A car for a single rail railway comprising a car body, two centrally arranged carrying wheels for said car body, each of said wheels being rotatably mounted upon a horizontal axle, a support for each of said axles, vertical axles connected to and rotating with said supports, means to support said vertical axles and means whereby said supports with wheels can be turned in a horizontal direction about vertical axes by hand, and springs arranged between said wheel supports and the car body, substantially as described. 7th. A car for a single rail railway comprising a car body, two two-wheeled bogies or trucks arranged, one at the front and the other at the rear of the car body, the wheels of the bogies being arranged one behind the other, and each capable of rotation on a horizontal axis and of swivelling about a vertical axis and vertical pivots by which said bogies are adapted to turn about vertical axes, substantially as described. 8th. A car for a single rail railway comprising a car body, centrally arranged carrying wheels located at the front and rear of said car body and each capable of turning about a horizontal axis and about a vertical axis, and one or more bars projecting laterally from the car, substantially as described. 9th. A car for a single rail railway comprising a car body, centrally arranged wheels located at the front and rear of said car body and each mounted to turn about a horizontal axis and about a vertical axis, laterally projecting bars on said body, and means provided on said bars whereby an animal can be harnessed or yoked thereto, substantially as described. 10th. A car for a single rail railway, comprising a car body, centrally arranged wheels located at the front and rear of said car body and each mounted to turn about a horizontal axis and about a vertical axis, laterally projecting bars on said body, and means to ensure parallelism of the pull at the side of the car, substantially as described. 11th. In a single rail railway, means whereby a car can be moved to the side of the track, comprising branching lines at suitable distances apart along the single line and crossing plates at the junctions of said branch lines and the single line, each of the said plates being adapted to receive the adjacent ends of the rails and provided with a plane middle portion adapted to receive thereon the outer peripheral flange of a car wheel, substantially as described with reference to and shown in Figs. 46<sup>a</sup> and 46<sup>b</sup>, of the accompanying drawings.

**No. 64,039. Railway Switch. (Aiguille de chemin de fer.)**

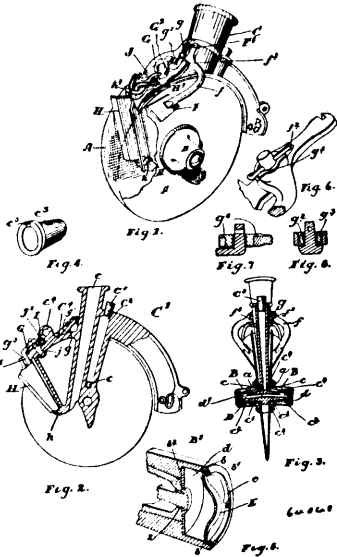


Pettibone, Mulliken & Co., Chicago, assignee, of Axle Albin Strom, Austin, Ill., U.S.A., 29th September, 1899; 6 years. (Filed 4th July, 1899.)

*Claim.*—1st. The combination with a switch rail and its tie bar, of means for adjustably connecting the rail and bar comprising a clip having an opening, an eccentric rotatably seated in said opening and pivotally connected with the tie bar, notches about the eccentric, and a permanently fixed stop on one of the said parts for engaging one of said notches to lock the eccentric in its position of adjustment within said opening. 2nd. The combination with a switch rail and a tie bar therefor provided with a jaw, of means for adjustably connecting the rail end bar, comprising a clip having an opening, an eccentric rotatably seated in said opening and having pivotal connection with the tie bar, notches about the eccentric, and a permanently fixed stop on one of the said parts for engaging one of said notches to lock the eccentric in adjusted position within said opening, the eccentric being confined in the clip opening by being embraced by the said jaw. 3rd. The combination with a switch rail and a tie bar therefor provided with a jaw, of means for adjustably connecting the rail and bar comprising a clip having an opening and a permanently fixed stop adjacent to said opening, an eccentric rotatably seated in said opening and provided in its periphery with notches any one of which may be brought into engagement with the stop to lock the eccentric in adjusted position, the eccentric being

confined in the clip opening by being embraced by the jaw, and a pin passed through the jaw and eccentric to afford a pivot for the latter.

**No. 64,040. Disc Shoe for Seeding Machines.**  
(*Sabot à disques pour semailles*)

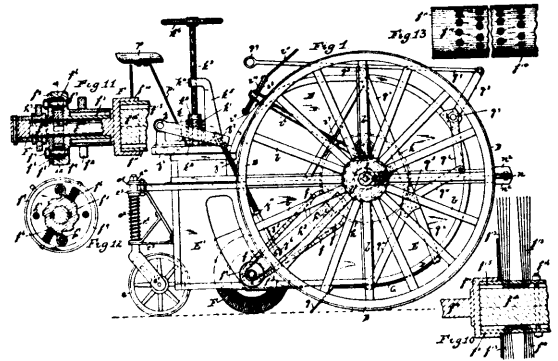


The Cockshutt Plough Co., assignee of James Morphy, all of Brantford, Ontario, Canada, 29th September, 1899; 6 years. (Filed 22nd June, 1899.)

*Claim.*—1st. In a disc shoe for seeding machines, in combination the converging discs, the hollow hubs provided with an internal taper, the grain tube and boot and oil duct leading downwardly therefrom, the trunnions extending laterally on both sides of the grain tube, the passageways in the sides of the oil duct and the longitudinal passageways in the trunnions, the hollow tapered bearings fitting the conical trunnions and provided with passageways for the oil opposite the passageways in the trunnions, the inwardly extending lugs forming part of the tapered or conical bearings and extending into the side holes of the oil duct and means for connecting the parts together, as and for the purpose specified. 2nd. In a disc shoe for seeding machines, in combination the converging discs, the hollow hubs provided with an internal taper, the grain tube and boot and oil duct leading downwardly therefrom, the trunnions extending laterally on both sides of the grain tube, the passageways in the sides of the oil duct and the longitudinal passageways in the trunnions, the hollow tapered bearings fitting the conical trunnions and provided with passageways for the oil opposite the passageways in the trunnions, the inwardly extending lugs forming part of the tapered or conical bearings and extending into the side holes of the oil duct and means for connecting the parts together, as and for the purpose specified. 3rd. In a disc shoe for seeding machines, in combination the converging discs, the hollow hubs provided with an internal taper, the grain tube and boot and oil duct leading downwardly therefrom, the trunnions extending laterally on both sides of the grain tube, the passageways in the sides of the oil duct and the longitudinal passageways in the trunnions, the hollow tapered bearings fitting the conical trunnions and provided with passageways for the oil opposite the passageways in the trunnions, the end washers and the centrally bent hole extending through the deflected hole and end washers and securing the parts together, as and for the purpose specified. 4th. In a disc shoe for seeding machines, in combination the converging discs, the hollow hubs provided with an internal taper, the grain tube and boot and oil duct leading downwardly therefrom, the trunnions extending laterally on both sides of the grain tube, the passageways in the sides of the oil duct and the longitudinal passageways in the trunnions, the hollow tapered bearings fitting the conical trunnions and provided with passageways for the oil opposite the passageways in the trunnions, means for connecting the parts together, recesses in the ends of the hubs, the shoulder in the internal periphery of each recess, the cap abutting such shoulder, the annular groove outside the shoulder and the spring ring fitting within such groove and holding the parts together as and for the purpose specified. 5th. In a disc shoe for seeding machines, in combination the converging discs, the hollow hubs provided with an internal taper, the grain tube and boot and oil duct leading downwardly therefrom, the trunnions extending laterally on both sides of the grain tube, the passageways in the sides of the oil duct and the longitudinal passageways in the trunnions, the hollow tapered bearings fitting the conical trunnions and provided with passageways for the oil opposite the passageways in the trunnions and

having square openings in the outer ends thereof, the washers having an inwardly extending square collar fitting the openings in the ends of the tapered bearings and the bolt bent intermediately of its length and extending through the bearings and trunnions and connecting the parts together, as and for the purpose specified. 6th. The combination with the converging discs suitably journalled and the boot upon which such journal is supported or forms part of, of the external scrapers provided with curvulate arms and elongated pivotal holes, the pins attached to or forming part of the boot or casting and extending through the holes and the spring separating and exerting an outward tension upon the ends of the arms of the scrapers, as and for the purpose specified. 7th. The combination with the converging discs suitably journalled and the boot upon which such journal is supported or forms part of, of the external scrapers provided with arms having slots intermediate of their length provided with squared ends, the pivotal pins forming part of the bolt, the sleeve or enlargement surrounding the pin and provided with squared ends to abut the squared ends of the slot and the arc shaped sides, as and for the purpose specified. 8th. The combination with the converging discs suitably journalled and the boot upon which such journal is supported or forms part of, of the external scrapers provided with arms having slots intermediate of their length provided with squared ends, and bottom arc shaped extension grooves, the pivotal pins forming part of the boot, the sleeve or enlargement surrounding the pin and provided with squared ends to abut the squared ends of the slot and the end trunnions and the arc shaped sides as and for the purpose specified. 9th. The combination with the grain tube casting and rear extension thereof, of the scrapers comprising the blades pivoted in the bottom of the extension and having their inner edges abutting each other and the upper crank shaped pins and the plate secured to the grain tube casting or boot and provided with adjacent notches through which the crank pins extend and the spiral spring connecting the outer ends of the crank pins together, as and for the purpose specified. 10th. The combination with the grain tube casting and rear extensions thereof, of the scrapers comprising the blades pivoted in the bottom of the extension and having their inner edges abutting each other and the upper crank shaped pins and the plate secured to the grain tube casting or boot and provided with adjacent notches through which the crank pins extend and spiral spring connecting the outer ends of the crank pins together, the hood extending above the spring, the bolt passing through the hood plate and grain tube casting or rear part of the boot, as and for the purpose specified.

**No. 64,041. Street Sweeper.** (*Balayeuse de rue.*)



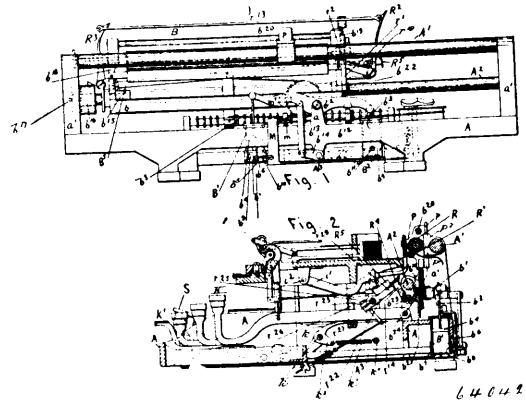
The Improved Street Sweeper Company, of Pittsburg, assignee of William Franz, Allegheny, both in Pennsylvania, U.S.A., 29th September, 1899; 6 years. (Filed 7th June, 1899.)

*Claim.*—1st. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle, a tank or dirt receptacle rigidly secured to the axle, a conveyor between the casing and the tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the rotatable broom, and gearing mechanism connected to the driving wheels and to gear wheels loosely mounted around the axle and rigidly connected to the conveyor, substantially as and for the purposes set forth. 2nd. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle, a tank or dirt receptacle rigidly secured to the axle, a conveyor between the casing and the tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the rotatable broom, gearing mechanism connected to the driving wheels and adapted to operate gear wheels loosely mounted around the axle, and ratchet wheels having pawls engaging therewith connected to said gear wheels and rigidly connected to the conveyor or frame, substantially as and for the purposes set forth. 3rd. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the table, a casing sup-

ported around the table, a tank or dirt receptacle rigidly secured to the axle, a conveyor between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the rotatable broom, gear wheels connected to the driving wheels and meshing with pinions mounted on shafts supported on said casing, pinions on said shafts and meshing with gear wheels loosely mounted around the axle, and ratchet wheels having pawls engaging therewith connected to said last-named gear wheels and rigidly connected to the conveyor, substantially as and for the purposes set forth. 4th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of said axle, connections from the driving wheels to the broom, a cross bar supported by and in front of said casing, bars removably secured to said cross bar and having collars thereon rigidly secured to the axle for dumping and holding the tank or dirt receptacle in place, substantially as set forth. 5th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the broom, a cross bar supported by and in front of said casing, bars removably secured to said cross bar having collars thereon rigidly secured to the axle, and bolts removably connected to the cross bars and bars for dumping and holding the tank or dirt receptacle in place, substantially as set forth. 6th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the broom, a cross bar supported by and in front of said casing, bars removably secured to said cross bar having collars thereon rigidly secured to the axle, slots in said cross bars, and bolts removably connected to the cross bars and bars having elongated heads thereon engaging the said slots in the cross bars for dumping and holding the tank or dirt receptacle in place, substantially as set forth. 7th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the broom, a cross bar supported by and in front of said casing, bars removably secured to said cross bar having collars thereon rigidly secured to the axle, bolts removably connected to the cross bars and bars having elongated heads thereon engaging with said slots in the cross bar, and wrench nuts engaging the said bolts for dumping and holding the tank or dirt receptacle in place, substantially as set forth. 8th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a rotatable broom mounted in the rear of the axle, connections from the driving wheels to the broom, adjustable spring rods secured to said broom and pivotally swivelled in arms secured to a shaft supported above the broom, and a worm gear wheel on said shaft meshing with a worm on an upright shaft having an operating wheel thereon for raising and lowering the broom, substantially as set forth. 9th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle and provided with an opening in the bottom thereof, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the broom, means on said axle for dumping and holding the tank in place, and a removable door pivoted to said casing and fitting over the opening in the bottom of the casing to allow the tank to be emptied, substantially as set forth. 10th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle, a casing supported around the axle and provided with an opening in the bottom thereof, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank

carrying buckets thereon, a rotatable broom adjustably mounted in the rear of the axle, connections from the driving wheels to the broom, means on said axle for dumping and holding the tank in place, a removable door pivoted to said casing and fitting over the opening in the bottom of the casing to allow the tank to be emptied, and a series of levers pivoted to the door, and casing for raising and lowering the door, substantially as set forth. 13th. In a street sweeper, the combination of an axle, supporting and driving wheels loosely mounted around the axle and provided with an opening in the bottom thereof, a tank or dirt receptacle rigidly secured to said axle, a conveyor frame between the casing and tank carrying buckets thereon, a rotatable broom adjustably mounted in the rear of said axle, connections from the driving wheels to the broom, means on said axle for dumping and holding the tank in place, a removable door pivoted to said casing and fitting over the opening in the bottom of the casing to allow the tank to be emptied, and a flexible apron secured to the rear end of said removable door to direct the sweepings into the buckets, substantially as set forth.

**No. 64,042. Typewriter. (Clavigraphic.)**



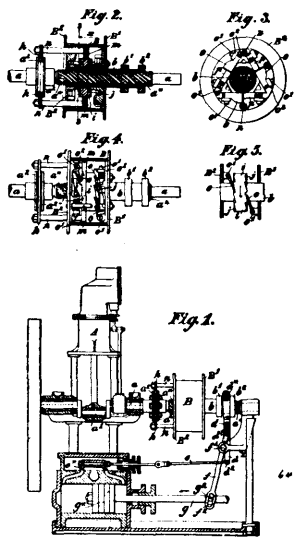
The Imperial Writing Machine Co., Montreal, Quebec, assignees of William Parker Kidder, Boston, Massachusetts, U.S.A., 29th September, 1899; 6 years. (Filed 2nd May, 1899.)

*Claim.*—1st. In a typewriting machine, the combination of a feed rack, an escapement device comprising a rolling cam, a piston and dash pot, the piston being connected to a rolling cam. 2nd. In a typewriting machine, the combination of a vertically adjustable, endwise moving paper carriage, a stop carrier, a double rocker lever, a pair of piston rods and pistons and co-operating dash pots, one piston rod, piston and dash pot being provided for each arm of said double rocker lever. 3rd. In a typewriting machine, the combination of a feed roll with a pinion loose on the roll, a sliding rack, a ratchet fast on the feed roll, a pawl on said pinion, and a line space lever engaging said rack. 4th. In a typewriting machine, the combination of a feed roll with a pinion loose on the roll, a sliding rack, a ratchet fast on the feed roll, a pawl on said pinion, a line space lever engaging said rack, a piston on the rack and a dash pot for the piston. 5th. In a typewriting machine, the combination of a paper carriage, a toothed rack extending endwise thereof, a rocking block carrying a plurality of escapement teeth, one of which is pivoted on the block and carrying also a rocking cam which engages the pivoted escapement tooth, and means for actuating the cam. 6th. In a typewriting machine, the combination of a paper carriage, a toothed rack extending endwise thereof, a rocking block carrying a plurality of escapement teeth one of which is pivoted on the block, a rocking cam mounted on said block, and a device for silently operating the rocking cam and pivoted escapement tooth, said device comprising as complementary members a piston and dash pot, one of which is connected with the rocking cam. 7th. In a typewriting machine, the combination of a plurality of type carriers, a plurality of impression key levers connected with said type carriers, a universal bar in the path of said key levers, a plurality of rolling cams, one for each key lever. 8th. In a typewriting or like machine, the combination of an endwise reciprocating and vertically adjustable paper carriage, a double rocker arm connected therewith, a piston and dash pot, one of which is carried by an arm of the double rocker arm, a movable stop mechanism, and a valve connected therewith, said dash pot having an orifice controlled by said valve. 9th. In a typewriting or like machine, the combination of a loosely mounted escapement rack with a double rocker lever, an arm of which is connected with said rack, and a push rod engaging with said double rocker lever, and extending crosswise the machine. 10th. In a typewriting or like machine, the combination of a loosely mounted escapement rack with a double rocker lever, an arm of which is connected with said rack, a push rod engaging with said double rocker lever, and an abutment, said push rod having a projecting end which rides on said abutment when the paper carriage is at an end of the machine. 11th. In a typewriting machine, the combination of an endwise movable and vertically adjustable paper carriage with

a series of endwise movable type bars, each carrying a plurality of types, a series of impression keys and of toggle connections for the impression keys and type bars, silently operating supports, substantially as set forth, for the impression keys, a silently operating stop device substantially as described for arresting the paper carriage when it is returned, silently operating stop devices, substantially as described, for both the upward and downward movement of the paper carriage, and an intermittent feed mechanism for the paper carriage comprising a rack and escapement with silently actuating devices therefor, said devices being substantially as set forth.

**No. 64,043. Engine Speed Regulator.**

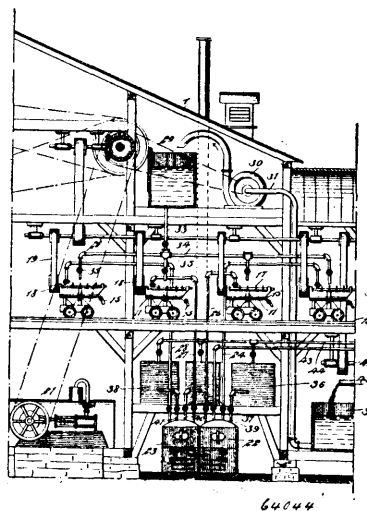
(Regulateur de la vitesse des machines à vapeur.)



Bertram Charles Elliot, 95 Kings Road, Chelsea, Middlesex, assignee of Robert Ford Courtenay Keats, 9 Garnier street, Portsmouth, England, 29th September, 1899; 6 years. (Filed 20th March, 1899.)

*Claim.*—1st. In governors or apparatus for regulating the speed of marine or other engines, the combination with a screw shaft, a nut screwed thereon and an auxiliary engine to revolve said shaft at a set speed, of a pulley driven from the main engine to be governed-connected to said nut in suchwise that said pulley and nut cannot revolve independently of one another except in certain extreme positions when they (the pulley and nut) are automatically disengaged from one another, substantially as and for the purposes described. 2nd. In governors or apparatus for regulating the speed of marine or other engines the combination with a screw shaft, a nut screwed thereon and an auxiliary engine to revolve said shaft at a set speed, of a lever such as *d* adapted to be operated by the movement of the said nut in the direction of the axis of said shaft, a rod pivoted to said lever and adapted to operate the valve of another and separate engine the piston rod *g* of which latter operates the throttle valve or valve gear of the main engine, and a pivoted lever *d* and at the other to said piston rod *g*, all arranged and operating substantially as and for the purposes described. 3rd. In governors or apparatus for regulating the speed of marine or other engines, the combination, with a screw shaft a nut screwed thereon and an auxiliary engine to revolve said shaft at a set speed, of a pulley driven from the main engine to be governed-connected to said nut in suchwise that said pulley and nut cannot revolve independently of one another except in certain extreme positions when they (the pulley and nut) are automatically disengaged from one another, a lever such as *d* adapted to be operated by the movement of the said nut in the direction of the axis of said shaft, a rod pivoted to said lever and adapted to operate the valve of another and separate engine the piston rod *g* of which latter operates the throttle valve or valve gear of the main engine, and a pivoted lever connected at one end to said lever *d* and at the other to said piston rod *g*, all arranged and operating substantially as and for the purposes described. 4th. In governors or apparatus for regulating the speed of marine or other engines the combination, with a screw shaft a nut screwed thereon and an auxiliary engine to revolve said shaft at a set speed, of a double faced ratchet wheel such as *i* fixed on said nut, spring pawls such as *o* oppositely disposed concentrically around the inside face of the said pulley and adapted to engage with said ratchet faced wheel *i* and to be disengaged therefrom, a ring such as *m* adapted to fit loosely around said ratchet wheel *i*, a collar *h* held between the discs *a*<sup>2</sup> with arms *n* thereon carrying said ring *m* in a fixed position with respect to said screw shaft and adapted to face the pawls back when said pawls bear against said ring *m* and thus automatically disengage the pulley and the nut, substantially as and for the purposes hereinbefore described.

**No. 64,044. Process and Apparatus for Separating Precious Metals from Ores.** (Procédé et appareil pour la separation des minerais.)



William H. Baker and Alvin Clark, both of Devil's Lake, North Dakota, U.S.A., 29th September, 1899; 6 years. (Filed 21st December, 1898.)

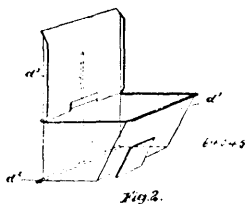
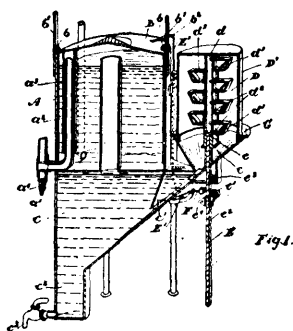
*Claim.*—1st. The process of recovering precious metals from their ores, consisting in dissolving the precious metal by applying boiling cyanide of potassium solutions and keeping the solutions of uniform strength during the treatment. 2nd. The process of separating precious metals from their ores, consisting in first pulverizing the ores, then subjecting the same to agitation and to a bath of boiling cyanide of potassium, keeping the solution of uniform strength during the treatment, separating the solution from the ore, and subsequently evaporating the same and calcining the residue to recover the metal. 3rd. The process herein described of separating precious metals from their ores, consisting in subjecting the pulverized ore to the action of a boiling solution of cyanide of potassium, agitating the mass, separating the solution from the ore, evaporating the solution, and then calcining the residue, as set forth. 4th. The process herein described, of separating precious metals from the ores, consisting in subjecting the pulverized ore to the action of a cyanide of potassium solution, admitting steam thereto to raise the solution to the boiling point, and then agitating the same, as set forth. 5th. The process herein described of separating precious metals from ores, consisting in subjecting the pulverized ore to the action of a cyanide of potassium solution, admitting steam thereto to raise the solution to the boiling point, agitating the mass, separating the solution from the ore and then evaporating the solution, as set forth. 6th. The process herein described of separating precious metals from ores, consisting in subjecting the pulverized ore to the action of a boiling solution of cyanide of potassium, agitating the mass, separating the solution from the tailings, subjecting the tailings to which water has been added to the action of heat while being agitated, separating the solution, adding a fresh supply of water to the tailings and then separating the resultant solution and utilizing the same in the treatment of a fresh supply of ore, as set forth. 7th. The process herein described of separating precious metals from ores, consisting in subjecting the ore to the action of a cyanide of potassium solution, admitting steam to the mass to bring it to the boiling point, agitating the same, separating the solution, adding water to the tailings and then utilizing the resultant solution after settling for the generation of steam to heat the cyanide of potassium solution, as set forth. 8th. The herein described process of separating precious metals from ores, consisting in subjecting the ore to the action of a cyanide of potassium solution, admitting steam to the mass to bring it to the boiling point, agitating the same, separating the solution, adding water to the tailings, utilizing the resultant solution for the generation of steam to heat the cyanide of potassium solution, subjecting the tailings to which water has been added to the action of heat while being agitated, separating the solution, adding more water to the tailings and then separating the resultant solution and utilizing the same in the treatment of a fresh supply of ore, as set forth. 9th. The process herein described of separating precious metals from ores, consisting in subjecting the ore to the action of cyanide potassium solution, admitting steam to the mass to heat the same, separating the solution from the tailings and subjecting the solution to the action of steam to evaporate the same, and at the same time generate steam to be use in the heating of a subsequent mass of ore and cyanide of potassium, as set forth. 10th. The process herein described of separating precious metals from ores, consisting in subjecting the crushed ore to the action of



cyanide solution agitating the mass, admitting steam to the mass to heat the same to the boiling point, separating the solution from the tailings, washing the tailings and then subjecting the solution resulting from the washing to the action of heat to evaporate the same and at the same time generate steam to be used in heating a subsequent mass of ore and cyanide of potassium. 11th. In an apparatus for recovering precious metals from their ores, a series of movable tanks, a stirrer in each tank, means for discharging a hot recovering solution into the tanks, means for discharging water into the tanks, bins to receive the tailings from the tanks, and means for forcing the recovering solution through said tailings, substantially as specified. 12th. An apparatus for recovering precious metals from their ores, comprising a number of movable tanks, a boiler supplying hot solution to the tanks, settling tanks for receiving metal bearing solution from the first named tanks, the said settling tanks having connection with the boiler, and means for supplying the first named tanks with solution drawn from the washed tailings, substantially as specified.

**No. 64,045. Acetylene Gas Machine.**

(Machine à gaz acétylène.)

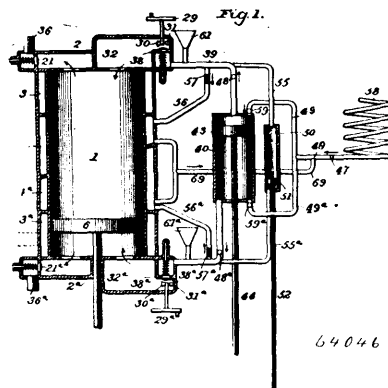


Frank Matthews, Montreal, Quebec, Canada, 29th September, 1899; 6 years. (Filed 15th March, 1899.)

*Claim.*—1st. The combination with the gasometer and an independent water receptacle located beneath and communicating with the same provided with an inclined side or chute, of a carbide receptacle or generator located above the hopper leading into the chute, a central stem in the receptacle, a plurality of carbide holding buckets swung at different heights on the stem, a detachable means for maintaining them in a horizontal position, and means operated by the fall of the gasometer for releasing the catch of each successive bucket so that it upsets and deposits its contents upon the chute, as and for the purpose specified. 2nd. The combination with the gasometer and an independent water receptacle located beneath the same provided with a tube extending from the water receptacle up into the gasometer and an inclined side forming a chute for the carbide, a deflecting shield intermediate of the length of the chute, a hopper formed at the top of the chute, a carbide receptacle located on same, a central stem in the receptacle a plurality of carbide holding buckets swung at different heights on the stem, a detachable means for maintaining them in a horizontal position and means operated by the fall of the gasometer for releasing the catch of each successive bucket, so that it upsets and deposits its contents upon the chute, as and for the purpose specified. 3rd. The combination with the gasometer and an independent water receptacle located beneath and communicating with the same, provided with an inclined side or chute, of a carbide receptacle located above the hopper leading into the chute, a hollow stem suitably supported on the carbide receptacle, a series of buckets located above each other and pivotally swung on the stem, a catch extending through a recess in the stem and holding the buckets in their normal horizontal position, a rod extending upwardly through the stem provided with a suitable head designed to engage with the catch to loosen the same, and means connected with the gasometer for imparting an upward movement to such rod upon each downward movement or fall of the gasometer dome, as and for the purpose specified. 4th. The combination with the gasometer and an independent water receptacle located between and communicating with the same, provided with an inclined side or chute, of a carbide receptacle located above the hopper leading into the chute, a hollow stem suitably supported on the carbide receptacle, a series of buckets located above each other and pivotally

swung on the stem, a catch extending through a recess in the stem and holding the buckets in their normal horizontal position, a rod extending upwardly through the stem provided with a suitable head designed to engage with the catch to loosen same, a series of notches on such rod substantially corresponding in distance apart with the distance between the catches of the buckets in the stem, a pawl mechanism engaging with such notches, and means connected to the gasometer to operate such pawl mechanism upon each downward movement of the dome of the gasometer, as and for the purpose specified. 5th. The combination with the gasometer and an independent water receptacle located beneath and communicating with the same and provided with an inclined side or chute, of a carbide receptacle located above the hopper leading into the chute, a hollow stem suitably supported on the carbide receptacle, a series of buckets located above each other and pivotally swung on the stem, a catch extending through a recess in the stem and holding the buckets in their normal horizontal position, a rod extending upwardly through the stem provided with a suitable head designed to engage with the catch to loosen the same, a series of notches on such rod substantially corresponding in distance apart with the distance between the catches of the buckets in the stem, a suitable lever pivoted in the frame, a pawl connected to one end of the lever and engaging the rack, a retaining pawl, a rod connected to the opposite end of the lever and provided with a bent upper end and suitably supported in the frame, and a projecting bracket extending from the top of the gasometer and designed to come in contact with the rod, so as to tilt the operating lever at the bottom thereof on its pivot, as and for the purpose specified.

**No. 64,046. Method of and Apparatus for the Direct Conversion of Energy.** (*Méthode et appareil pour la conversion directe de l'énergie.*)



Willard Reed Green, Denver, Colorado, assignee of Augustus Howard, San Francisco, California, U.S.A., 29th September, 1899; 6 years. (Filed 9th January, 1899.)

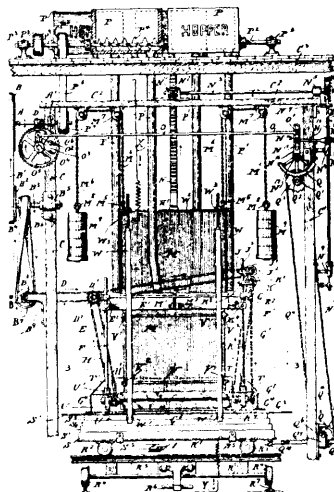
*Claim.*—1st. In the conversion of the energy of fuel and an expansion medium into power, the combination of means for comprising the expansion medium to the desired degree while retaining substantially atmospheric or initial temperature, or reducing the same, a device for at once introducing into the compressed expansion medium the fuel of combustion, with an independent igniter for igniting the fuel, whereby the expansion medium is caused to be expanded and to perform mechanical work, substantially as described. 2nd. In the conversion of the energy of the fuel and an expansion medium into power, the combination of means for successively expanding and compressing the expansion medium without material increase of temperature, a device for at once introducing the fuel of combustion into the compressed expansion medium, with an igniter for igniting the fuel and thereby causing it to expand the compressed expansion medium and perform mechanical work, substantially as set forth. 3rd. In the conversion of the energy of fuel and an expansion medium into power, the combination of means for compressing the expansion medium without material increase of temperature, a device for at once injecting the fuel into, and simultaneously increasing the degree of compression of the compressed expansion medium, with an independent igniter for igniting the fuel, whereby the compressed expansion medium is caused to be expanded while performing mechanical work, substantially as described. 4th. In an internal combustion engine, the combination with a working cylinder of an air compressor to compress the air to practically the highest compression in the working cylinder before combustion operatively connected and directly discharging into the cylinder, and co-acting to alternately compress and expand and re-compress air to obtain the desired compression and temperature of the expansion medium, substantially as described. 5th. In an internal combustion engine, the combination with a working cylinder of the air compressor to compress the air to practically the highest compression in the working cylinder before combustion operatively connected and directly discharging into said cylinder, an inlet



passage connecting said compressor and cylinder, and a valve controlling said passage, the cylinder and compressor co-acting to alternately compress and expand and recompress air to obtain the working compression and temperature of the expansion medium and to permit the transfer of air from said compressor through said passage to said cylinder, substantially as described. 6th. In an internal combustion engine, the combination of a working cylinder and an air compressor to compress the air to practically the highest compression in the working cylinder before combustion operatively connected and directly discharging into said cylinder, the compressor being of smaller capacity than the cylinder and both co-acting to alternately compress, expand and recompress air to obtain the desired compression and temperature of the expansion medium, substantially as described. 7th. In an internal combustion engine, the combination with a working cylinder of an air compressor, operatively connected and discharging into the cylinder, substantially as described. 8th. In an internal combustion engine, the combination, with a working cylinder, of an air compressor, an air compressing ram and connections between the cylinder, the compressor and ram, both said cylinder and ram being operatively connected and directly discharging into said cylinder, substantially as described. 9th. In an internal combustion engine, the combination with a working cylinder, of an air compressor, an air compressing ram, a passage connecting the compressor with said cylinder, and a pipe connecting the ram with said passage, both the compressor and ram being operatively connected and directly discharging into said cylinder, substantially as described. 10th. In an internal combustion engine, the combination with a working cylinder, of an air compressor, an air compressing ram, a passage connecting the compressor with the cylinder, a check valve in said passage and a pipe connecting the ram with said passage beyond the check valve, substantially as described. 11th. In an internal combustion engine, the combination with a working cylinder, of an air compressor, an air compressing ram, a passage connecting the compressor and cylinder, a pipe connecting the ram and passage, and a fuel supply connected to said passage, substantially as described. In an internal combustion engine, the combination with a working cylinder having an air compressor, a passage connecting said air compressor and cylinder and a relief pipe leading from said passage to said jacket, substantially as described. 13th. In an internal combustion engine, the combination with a working cylinder having an air jacket, of an air compressor, a passage connecting said air compressor and cylinder, a relief pipe leading from said passage to said jacket, and a pressure valve in said pipe, substantially as described. 14th. In an internal combustion engine, the combination with a working cylinder having an air jacket, of an air compressor, a passage connecting said compressor and cylinder, a relief pipe connecting said passage and jacket and a pipe connecting said jacket and the inlet of said compressor, substantially as described. 15th. In an internal combustion engine, the combination with a working cylinder, of an air compressor, a passage connecting said compressor and cylinder, and a pipe provided with a coil connected with the inlet of said compressor, substantially as described. 16th. In an internal combustion engine, the combination with a working cylinder having an air jacket, of an air compressor, a passage connecting the air compressor and cylinder, a pipe leading from said passage to said air jacket, a pipe connecting said jacket and the inlet of said compressor, said pipe having an opening communicating with an atmospheric air through a check valve, substantially as described. 17th. In an internal combustion engine, the combination with an air compressor receiving, expanding and compressing the air, of a working cylinder, of larger capacity than the compressor, receiving the compressed air from the compressor and expanding and re-compressing the same, and direct connections between the compressor and cylinder, whereby the compressed air in the compressor is directly discharged into the cylinder to be expanded and re-compressed, substantially as described. 18th. In an internal combustion engine, the combination with an air compressor receiving air, expanding and compressing the same, means for removing moisture from the air before entering the compressor, a working cylinder into which the compressed air from the compressor is directly discharged and in which the air is expanded and re-compressed, substantially as described. 19th. In a double acting internal combustion engine, a working cylinder and piston, an air compressor to compress the air to practically the highest compression in the working cylinder before combustion, and connections between the opposite ends of the working cylinder and air compressor and co-acting to alternately compress, expand and re-compress air to obtain the desired compression and temperature of the air, substantially as described. 20th. In a double acting internal combustion engine, the combination with a working cylinder and piston therein, of an air compressor, connections between the opposite ends of the compressor and the opposite ends of said cylinder, and an air compressing ram, the opposite ends of which are connected with said cylinder, substantially as described. 21st. In a double acting internal combustion engine, a working cylinder and piston, an air compressor, to compress the air to practically the highest compression in the working cylinder before combustion, connections between the two ends of the compressor and the opposite ends of said working cylinder, a fuel supply connected to each end of the cylinder, means for injecting the fuel supply into the cylinder at each end and independent means for igniting said fuel, substantially as described. 22nd. In an internal combustion engine, the combination with a working cylinder and piston, of an air compressor,

means for introducing compressed air and fuel of combustion into said cylinder, means for igniting said fuel and expanding said air, an exhaust valve, and means for operatively connecting the same with the piston, whereby the exhaust is controlled by the movement of the piston, and the pressures in the working cylinder controlling the admission of air and fuel are determined, substantially as described.

**No. 64,047. Electric Furnace. (Fournaise électrique.)**



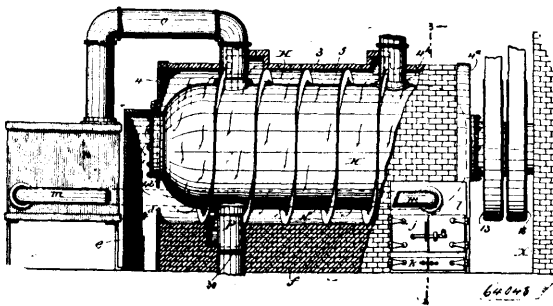
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John Joyce, Andover, assignee of James A. Denther, Boston, both of Massachusetts, U.S.A., 29th September, 1899; 6 years. (Filed 28th December, 1898.)

*Claim.*—1st. In an electric furnace, two opposite electrodes, a feed mechanism, a regulator operating independently of said feed mechanism and located adjacent to the anode for receiving the material to be treated from said feed mechanism and for supplying the same to the arc, and means for operating said regulator. 2nd. In an electric arc furnace, two opposite electrodes, a mechanism for moving one of said electrodes relatively to the other, a feed mechanism, a regulator operating independently of said feed mechanism and located adjacent to the anode for receiving the material to be treated from said feed mechanism and for supplying the same to the arc, and means for operating said regulator. 3rd. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes relative to the other, a feed mechanism, and a regulator independent of said feed mechanism and carried by said movable electrode intermediate of said feed mechanism and the anode for receiving the material to be treated from said feed mechanism and supplying the same to the arc. 4th. In an electric arc furnace, two opposite electrodes, a feed mechanism, a rotatable fan operating independently of said feed mechanism and located adjacent to the anode for receiving the material to be treated from said feed mechanism and to regulate the supply of the same to the arc, and means for rotating said fan. 5th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism, and a rotatable fan located intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc. 6th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism and a rotatable fan carried by said movable electrode intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc. 7th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes horizontally, a mechanism for moving the other of said electrodes vertically, a feed mechanism, and a rotatable fan carried by said vertically movable electrode intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc. 8th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism, a plurality of fans carried by said movable electrode intermediate of said feed mechanism and the anode for regulating and distributing the supply of material to the arc, and means for rotating said fans. 9th. In an electric arc furnace, two opposite electrodes, a feed mechanism, a regulating mechanism operating independently of said feed mechanism and located adjacent to the anode for receiving the material to be treated from said feed mechanism and for supplying the same to the arc, means for operating said regulating mechanism, and a wall surrounding said regulating mechanism. 10th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism, a distributing and regulating mechanism located intermediate of said feed mechanism and the anode, and a telescopic wall surrounding said

distributing and regulating mechanism. 11th. In an electric arc furnace, two opposite electrodes, a mechanism for moving one of said electrodes, a feed mechanism, a rotatable fan located intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc, and a telescopic wall surrounding said fan. 12th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism, a rotatable fan carried by said movable electrode intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc, and a telescopic wall surrounding said fan. 13th. In an electric furnace, two opposite electrodes, mechanism for moving one of said electrodes relative to the other, a feed mechanism, a regulator operating independently of said feed mechanism and located adjacent to the anode for receiving the material to be treated from said feed mechanism and for supplying the same to the arc, and means for moving said regulator simultaneously with said movable electrode. 14th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism, a distributing and regulating mechanism movable simultaneously with said movable electrode and located intermediate of said feed mechanism and the anode, and a telescopic wall surrounding said distributing and regulating mechanism. 15th. In an electric arc furnace, two opposite electrodes, mechanism for moving one of said electrodes, a feed mechanism, a rotatable fan movable simultaneously with said movable electrode and located intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc. 16th. In an electric arc furnace, two opposite electrodes, a mechanism for moving one of said electrodes, a feed mechanism, a rotatable fan movable simultaneously with said movable electrode and located intermediate of said feed mechanism and the anode for distributing and regulating the supply of material to the arc, and a telescopic wall surrounding said fan. 17th. In an electric arc furnace, two opposite electrodes, mechanism for separating said electrodes, and a wall consisting of telescopic sections around the lower electrode and adapted to extend and enclose the lower electrode and newly formed carbide as the electrodes separate. 18th. In an electric arc furnace, two opposite electrodes, mechanism for feeding the material to be treated to the path of the electric arc, a wall consisting of telescopic sections around the lower electrode and adapted to extend and enclose the lower electrode and newly formed carbide as the electrodes separate, and a frame located around said feeding mechanism for keeping the raw material in contact with said feeding mechanism to keep the arc constantly supplied and adapted with the telescopic furnace walls to enclose the lower end of the upper electrode and the newly formed carbide on the top of the lower electrode as the electrodes separate. 19th. In an electric arc furnace, two opposite electrodes, mechanism for separating said electrodes, mechanism for feeding the material to be treated to the path of the electric arc, a wall consisting of telescopic sections around the lower electrode and adapted to extend and enclose the lower electrode and newly formed carbide as the electrodes separate, and a frame located around said feeding mechanism for keeping the raw material in contact with said feeding mechanism to keep the arc constantly supplied and for removing the excess of raw material from proximity to the arc whereby said excess is not injuriously affected by the heat of the arc and adapted with the telescopic furnace wall to enclose the lower end of the upper electrode and the newly formed carbide on the top of the lower electrode as the electrodes separate. 20th. In an electric furnace, two opposite electrodes, mechanism for moving one of said electrodes relative to the other, mechanism for separating said electrodes, feed mechanism, regulating mechanism operating independently of said feed mechanism and located adjacent to the anode for receiving the material to be treated from said feed mechanism and for supplying the same to the arc, and means for simultaneously operating all said mechanisms.

**No. 64,048. Retort. (Cornuc.)**



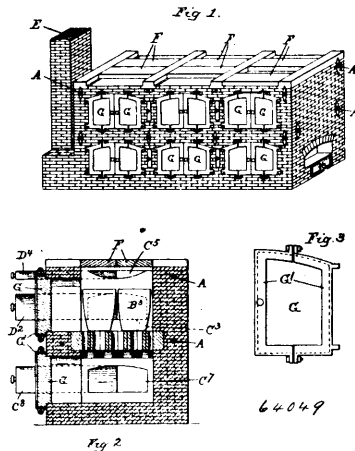
Harry Spurrier, Montreal, and Charles Wandly Pearson, Westmouth, both of Quebec, Canada, 29th September, 1899; 6 years. (Filed 5th October, 1898.)

**Claim.**—1st. A retort or the like, comprising a pair of compartments, said compartments communicating with one another, means for supplying substance to said compartments, means for causing

said substance to circulate continuously from one to the other and through said compartments alternately, and a discharge passage from said compartments, for the purpose set forth. 2nd. A retort or the like, comprising a pair of compartments of corresponding capacity, said compartments communicating with one another, means for causing said substance to circulate continuously from one to the other and through said compartments alternately, and a discharge passage from said compartments, for the purpose set forth. 3rd. In a retort or the like, the combination of a pair of cylinders located one within the other, a pair of helices adapted to impart motion in opposite directions, one of said helices being located between said cylinders, and the other within the inner cylinder, the inner cylinder having its ends open and the outer cylinder being of greater length than the inner cylinder and having its ends closed, means for carrying substance from one of said cylinders to the other, a feed pipe leading to and a discharge pipe leading from said cylinders, means for actuating said helices, for the purpose set forth. 4th. In a retort or the like, the combination of a rotary and a stationary cylinder located one within the other, a pair of helices adapted to impart motion in opposite directions, one of said helices being located between said cylinders, and the other within the inner cylinder, the inner cylinder having its ends open and the outer cylinder being of greater length than the inner cylinder and having its end closed, means for carrying substance from one of said cylinders to the other, a feed pipe leading to and a discharge pipe leading from said cylinders, means for rotating said rotary cylinder, and means for actuating said helices, for the purpose set forth. 5th. In a retort, or the like, the combination of a rotary and a stationary cylinder located one within the other, a pair of helices adapted to impart motion in opposite directions, one of said helices being located between said cylinders and the other within the inner cylinder, the inner cylinder having its ends open and the outer cylinder being of greater length than the inner cylinder and having its ends closed and of hemispherical forms, means for transferring substance from one to the other of said cylinders, a feed pipe leading to and a discharge pipe leading from said cylinders, means for rotating said rotary cylinder, and means for actuating said helices for the purpose set forth. 6th. A retort for the destructive distillation of sawdust, comprising a stationary cylinder, a rotary cylinder located within said stationary cylinder, a helix carried upon the exterior of and movable with said rotary cylinder, a helix mounted within said rotary cylinder, means for rotating said inner helix and rotary cylinder in opposite directions; a saw dust supply pipe, a gas discharge pipe and a residue discharge pipe connected to said outer cylinder, and the ends of said outer cylinder being closed and hemispherical in form and means for transferring the saw-dust from one to the other of said cylinders, for the purpose set forth. 7th. In a retort for the destructive distillation of saw-dust, a horizontally arranged stationary cylinder having its ends closed and of hemispherical form, a rotary cylinder located within said stationary cylinder and mounted loosely upon a tube extending axially therethrough and through the stationary cylinder, a helix mounted rigidly upon the exterior of said rotary cylinder and a helix mounted rigidly upon said tube and extending within said rotary cylinder, means for rotating said tube and rotary cylinder in opposite directions, means for transferring substance from one to the other of said cylinders; a feed pipe communicating with the upper side of said stationary cylinder, a gate for controlling the passage through said pipe, a helix mounted within said pipe, means for rotating said helix, a gas discharge pipe also at the upper end of said stationary cylinder and having a transverse perforated diaphragm located therein, a dome or expansion chamber located intermediate of said gas discharge pipe and cylinder, and a residue discharge pipe communicating with the lower side of said cylinder, a gate for controlling said latter pipe, substantially as and for the purpose set forth. 8th. In a retort or the like, a pair of cylinders located one within the other, the outer cylinder having its ends closed and being of greater length than the inner cylinder, a non-rotatory cylindrical section secured to one end of said outer cylindrical section and having its top open, a series of vanes carried by said inner rotary cylinder and projecting along the full length of said stationary cylindrical section, a tube extending from end to end of said outer cylinder, a pair of helices located one between the inner and outer cylinders and the other between said inner cylinder and said tube, and a third helix located within said stationary cylindrical section, a furnace, a spiral flue encircling said outer cylinder and connecting said furnace to one end of said tube, the other end of said tube being connected to the chimney, a condenser, a pipe for connecting the interior of said retort to said condenser, a pipe for connecting said condenser to the fire chamber of the furnace, and means for rotating said helices to impart movement in opposite directions, for the purpose set forth. 9th. In a retort or the like, a pair of cylinders located one within the other, the outer cylinder having its ends closed and being of greater length than the inner cylinder, a non-rotatory cylindrical section secured to the interior of one end of said outer cylindrical section and having its top open, a series of vanes carried by said inner rotary cylinder and projecting along the full length of but free from said stationary cylindrical section, a shaft extending axially through said cylinders, means for supporting said shaft, a right hand helix located between the inner and outer cylinders and carried rigidly upon said inner cylinder, a second right hand helix located between said inner cylinder and said shaft and carried rigidly by said shaft; a sleeve encircling said

shaft and extending through said stationary cylindrical section from within said inner cylinder near the adjacent end thereof, to the exterior of the cylinders, a left hand helix located within said stationary cylindrical section and carried rigidly upon the inner portion of said sleeve, a series of diagonally arranged bracket arms connecting the adjacent part of said inner cylinder to said sleeve, means for supporting the opposite ends of said inner cylinders and means for rotating said sleeve and shaft in opposite directions, for the purpose set forth. 10th. In a retort or the like, a pair of cylinders located one within the other, the outer cylinder having its ends closed and being of greater length than the inner cylinder, a non-rotatory cylindrical section secured to the interior of one end of said outer cylindrical section and having its top open, a series of vanes carried by said inner rotary cylinder and projecting along the full length of but free from said stationary cylindrical section; a shaft extending axially through said cylinders, means for supporting said shaft, a right hand helix located between the inner and outer cylinders and carried rigidly upon said inner cylinder, a second right hand helix located between said inner cylinder and said shaft and carried loosely by said shaft, a sleeve encircling said shaft and extending through said stationary cylindrical section from within said inner cylinder near the adjacent end thereof to the exterior of the cylinders, a left hand helix located within said stationary cylindrical section and carried rigidly upon the inner portion of said sleeve, a series of diagonally arranged radial bracket arms connecting the adjacent end of said inner cylinder to said sleeve, means for supporting the opposite ends of said inner cylinder, a furnace, a spiral flue encircling said outer cylinder and connecting said furnace to one end of said tube, the other end of said tube being connected to the chimney, a condenser, a pipe for connecting the interior of said retort to said condenser, a pipe for connecting said condenser to the fire chamber of the furnaces, and means for rotating said sleeve and shaft in opposite directions, for the purpose set forth.

**No. 64,049. Crucible Furnace. (Fournaise à creusets.)**



Charles J. Best and John H. Vogt, both of Chicago, Illinois, U.S.A., 29th September, 1899; 6 years. (Filed 17th July, 1897.)

*Claim.*—1st. A furnace for treating metal ores or the like, comprising a series of chambers provided with perforated floors intermediate between the top and bottom thereof and adapted to support the crucibles containing the material to be treated, the dividing walls of said chambers provided with openings above the floor, one near the top of said wall and another intermediate between the top of the wall and the floor, and controlling devices for said openings. 2nd. A furnace for treating metal ores or the like, comprising a series of chambers provided with perforated floors intermediate between the top and bottom thereof and adapted to support the crucibles containing the material to be treated, the dividing walls of said chamber provided with openings above the floor, one near the top of said wall and another intermediate between the top of the wall and the floor, and controlling devices for said openings, the dividing walls below the floors being also provided with controllable openings.

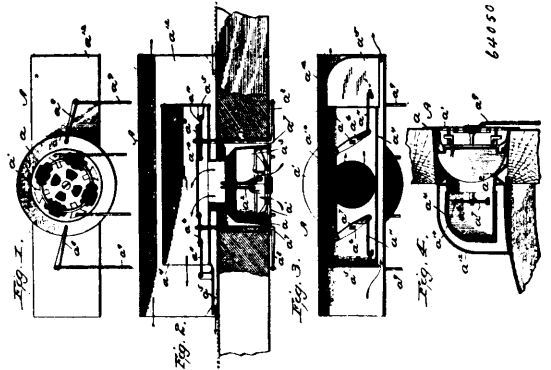
**No. 64,050. Railway Car Ventilator.**

(Ventilateur de chars de chemin de fer.)

William Ezra Andrew, William Harrigan and Hopping and Ely all of Atlantic Highlands, New Jersey, U.S.A., 29th September, 1899; 6 years. (Filed 20th March, 1899.)

*Claim.*—1st. A car ventilating device, comprising a casing through which the air passes, an inner flue or chamber connected with a cross-section extending through and into the car, the inner flue being provided at each end with a closing device connected by bars, and a rod or lever connected by interposed mechanism with the bars and passing through and into the car, and serving to operate the closing devices, and also to indicate their position, substantially as described.

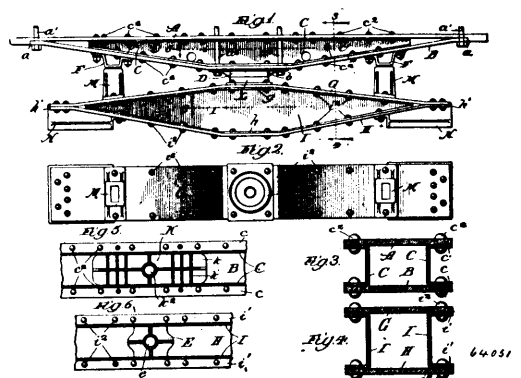
2nd. A ventilating apparatus comprising a ventilator proper having an open work face plate provided with a movable section, slats or



bars adapted to be operated by the movement of the said section, a casing or housing in which the ventilator is mounted, said casing constituting a combined exhaust and supply chamber, a chamber secured to the rear portion of said casing, and constituting a suction and draft controlling chamber, doors or valves pivoted at the ends of this latter chamber, and connected by mechanism adapted to be operated in such manner that when one valve is opened the other one is closed, and vice versa, the mechanism for opening and closing these valves constituting, also, indicating devices for determining which of the valves is opened or closed, and an open ended draft conduit inclosing the casing and projecting beyond the same, substantially as described. 3rd. A ventilating apparatus comprising a casing having mechanism for controlling the passage of pure or foul air therethrough, an open ended chamber, in communication with the casing, having doors adapted to be operated by mechanism arranged externally of the face of the said casing and operating to open or close one or the other end of the chamber, and a draft conduit inclosing the chamber, and a portion of the casing, and having its ends extended beyond the ends of the chamber, and somewhat reduced or constricted, substantially as described. 4th. In a sleeping car, the combination with each berth space, of a ventilating device comprising a casing through which the air passes, an inner flue or chamber connected with a cross section extending into the said space, the inner flue being provided at each end with closing devices connected by bars and a rod or lever connected by interposed mechanism with the doors and passing through and into the berth space, whereby an occupant of a berth can ventilate the same independently of and without interference with any other berth, substantially as described. 5th. A sleeping car having the upper berth space, roof timbers, and dead air space above the ceiling provided, each, with a series of independently operating ventilators, and ventilator comprising a casing through which the air passes, an inner flue or chamber connected with a cross section extending into the car, the inner flue being provided at each end with a closing device connected by bars, and a rod or lever connected by interposed mechanism with the bars and passing through and into the car, as and for the purpose specified.

**No. 64,051. Truck and Body Bolster for Railway Cars.**

(Châssis et traversin de chars de chemin de fer.)

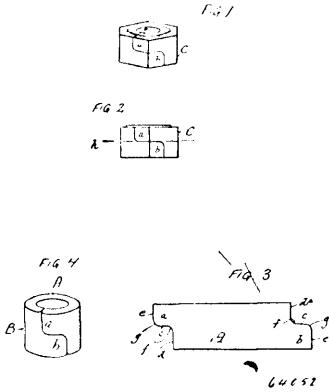


The Common Sense Bolster Co., assignee of Frank Thompson, all of Chicago, Illinois, U.S.A., 29th September, 1899; 6 years. (Filed 4th July, 1899.)

*Claim.*—1st. In a body bolster of the class described, an upper plate formed of wrought metal arranged in a horizontal plane and having shoulders at each end and the lower side thereof, a lower member arranged substantially in a horizontal plane at its central

portion and inclined upwardly at the ends where it abuts against the shoulder of the upper member, filling plates of flanged wrought metal at each side of the bolster and riveted to the upper and lower members, a center filling between the upper and lower members of the bolster and between the side portions thereof, substantially as described. 2nd. A truck bolster of the class described, provided with upper and lower members formed of wrought metal arranged in substantially horizontal planes at their central portions and inclined towards each other until they contact at the edges and secured together at such edges, and flanged sheet metal side pieces at each side of the truck bolster with their flanges riveted to the upper and lower members, and a rectangular filling arranged between the upper and lower members and between the side portions thereof to resist strains and stress at such points, substantially as described.

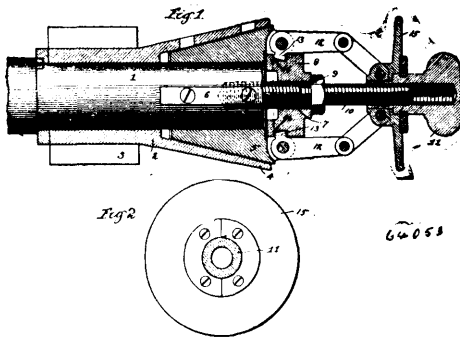
**No. 64,052. Nut. (Ecrnu.)**



The National Elastic Nut Co., assignee of Tracy Lyman Paine, all of Milwaukee, Wisconsin, U.S.A., 29th September, 1899; 6 years. (Filed 1st April, 1899.)

*Claim.*—1st. A nut-blank consisting of a strip of metal the ends of which are formed with integral extensions, one parallel at its upper edge with the upper edge of said strip, while the lower edge of the other extension is parallel with the lower edge of said strip, the said strip and its extensions having straight ends, and the inner edges of the said extensions following the line of the longitudinal center of the strip, and being united to the said straight ends on rounded lines. 2nd. A nut provided with a slit extending in vertical lines from the top and bottom of the nut, and from different points of the bore, through the nut to points adjacent to the center, the vertical lines of the slit being united by rounded lines merging into a lateral longitudinal line, whereby the nut will hold its place upon a bolt without being locked against lateral expansion.

**No. 64,053. Clutch Mechanism. (Mecanisme d'embrayage.)**

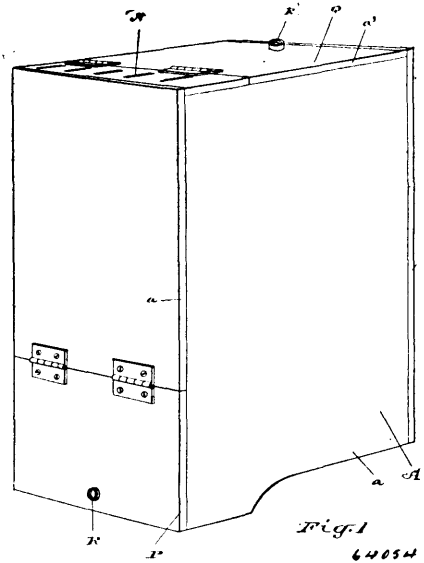


Fairbanks, Morse & Company, Chicago, Illinois, assignee of Franklin Gatfield Hobart, Beloit, Wisconsin, U.S.A., 29th September, 1899; 6 years. (Filed 1st May, 1899.)

*Claim.*—1st. A friction clutch comprising a driving shaft, a loose gear or pulley mounted thereon; a sliding friction sleeve mounted upon the shaft in position to be thrown into and out of engagement with the loose gear, a system of bell crank levers pivotally attached at their angles to the sleeve, a collar or block fixed relatively as to movement between the shaft and sleeve, and block forming a fulcrum for one arm of each of the levers, and means for operating the levers to move the sleeve. 2nd. A friction clutch comprising a driving shaft, a loose gear or pulley mounted thereon, a sliding friction sleeve mounted upon the shaft in position to be thrown into and out of engagement with the loose gear, a system of bell crank levers pivotally attached at their angles to the sleeve, a collar or

block fixed relatively as to movement between the shaft and sleeve, said block forming a fulcrum for one arm of each of the levers, means for operating the levers to move the sleeve and means whereby the position of said fulcrum block may be adjusted. 3rd. A friction clutch comprising a driving shaft, a loose gear or pulley mounted thereon, a sliding friction sleeve mounted upon the shaft in position to be thrown into and out of engagement with the loose gear, a system of bell crank levers pivotally attached to their angles to the sleeve, a collar or block fixed relatively as to movement between the shaft and sleeve, said block forming a fulcrum for one arm of each of the levers, and hand operated mechanism connected to the other arm of each of the said levers for moving the sleeve. 4th. A friction clutch comprising a driving shaft, a loose gear or pulley mounted thereon, a sliding friction sleeve mounted upon the shaft in position to be thrown into and out of engagement with the loose gear, a system of bell crank levers pivotally attached at their angles to the sleeve, a collar or block fixed relatively as to movement between the shaft and the sleeve, said block forming a fulcrum for one arm of each of the levers, and means for operating the levers to move the sleeve, said means comprising a threaded extension of said shaft, a hand wheel or nut working thereon, and connections between the bell crank levers and said hand wheel, whereby longitudinal movement of the hand wheel is transmitted to the sleeve. 5th. A friction clutch comprising a driving shaft, a loose gear or pulley mounted thereon, a sliding friction sleeve mounted upon the shaft in position to be thrown into and out of engagement with the loose gear, a system of bell crank levers pivotally attached at their angles to the sleeve, a collar or block fixed relatively as to movement between the shaft and sleeve, said block forming a fulcrum for one arm of each of the levers, a threaded extension on said shaft, a lock-nut upon said threaded extension for holding said fulcrum block, a hand wheel, working on the same threaded extension, and connections between the bell crank levers and said hand wheel, whereby longitudinal movement of the hand wheel is transmitted to the sleeve. 6th. A friction clutch comprising a driving shaft, a loose gear or pulley mounted thereon, a sliding friction sleeve mounted upon the shaft in position to be thrown into and out of engagement with the loose gear, and a system of bell crank levers pivotally attached at their angles to the sleeve, a collar or block fixed relatively as to movement between the shaft and the sleeve, said block forming a fulcrum for one arm of each of the levers, hand operated mechanism connected to the other arm of each of the said levers for moving the sleeve, and a guard flange between the levers and said hand operated mechanism.

**No. 64,054. Vending Machine. (Machine de vente.)**

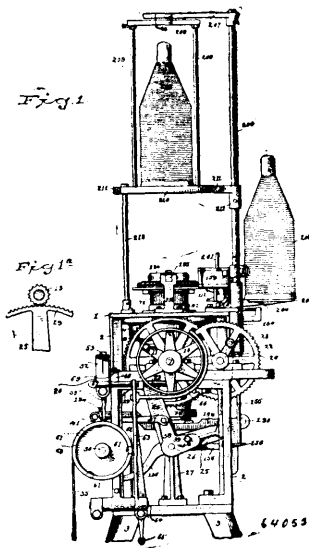


Lindley H. Bowerman, assignee of Henry C. P. Durnford, both of Toronto, Ontario, Canada, 29th September, 1899; 6 years. (Filed 16th February, 1899.)

*Claim.*—1st. An automatic vending machine for newspapers, consisting of a paper containing compartment, a pivot-plate to close the delivery end of the compartment, a coin-operated trip dog to normally hold the plate closed, and a coin-chute opposed to the trip dog, substantially as specified. 2nd. An automatic vending machine for newspapers, consisting of a paper-containing compartment, a pivoted plate to close the delivery end of the compartment, a coin-operated trip dog to normally hold the plate closed and a spring to hold the trip dog normally in a position to engage the pivoted plate, substantially as specified. 3rd. An automatic vending machine for newspapers, consisting of a paper-containing compartment, a pivoted plate to close the delivery end of the compartment, a pin projecting from the pivoted plate, a coin-operated trip dog to engage the pin

and normally hold the pivoted plate closed, a coin-chute opposed to the trip dog having a receiving-slot to admit the operating coin, and a guard-plate to protect the trip dog, having a curved slot to allow of the movement of the pin of the pivoted plate, substantially as specified. 4th. An automatic vending machine for newspapers, consisting of a paper-containing compartment, a pivoted plate to close the delivery end of the compartment, a pin projecting from the pivoted plate, a coin-operated trip dog to engage the pin and normally hold the pivoted plate closed, a coin-chute opposed to the trip dog having a receiving-slot to admit the operating coin, a guard plate to protect the trip dog, having a curved slot to allow of the movement of the pin of the pivoted plate, and a coin-receptacle, substantially as specified. 5th. An automatic vending machine for newspapers consisting of a paper containing compartment, a pivoted plate to close the delivery end of the compartment, a coin-operated trip dog to normally hold the plate closed, a coin-chute opposed to the trip-dog, and a guard-plate to protect the trip-dog, substantially as specified. 6th. An automatic vending machine for newspaper consisting of a paper-containing compartment, a pivoted plate to close the delivery end of the compartment, a coin-operated trip dog to normally hold the plate closed, a spring to hold the trip dog normally in a position to engage the pivoted plate, and a guard-plate to protect the trip dog, substantially as specified.

**No. 64,055. Knitting Machine.** (*Machine à tricoter.*)



Joshua D. Hemphill and Walter W. Radcliffe, both of Shelton, Connecticut, U.S.A., 29th September, 1899; 6 years. (Filed 9th January, 1899.)

*Claim.*—1st. A knitting-machine comprising in its construction needles, mechanism for reciprocating them, a single picker, a vertically yielding support therefor, and a pivotal connection between the picker and support. 2nd. A knitting-machine comprising in its construction needles, mechanism for reciprocating them, a single picker mounted on an adjustable fulcrum and adapted to render them inactive one by one and to restore them to activity, and means for shifting said fulcrum to reverse the operation of the picker. 3rd. A knitting-machine comprising in its construction a circular series of needles a portion of which have heels longer than the others, means for simultaneously rendering all of the long-heel needles inactive, and means for successively retiring some of the short-heel needles from and restoring them to activity, said means comprising a single picker, a vertically yielding support therefor, and an adjustable fulcrum for the picker. 4th. A knitting-machine comprising in its construction a circular series of needles a portion of whom have heels longer than the others, means for simultaneously rendering all of the long-heel needles inactive, a single picker adapted to render some of the short-heel needles successively inactive and to restore them to activity, a vertically yielding support for the picker, a pivotal connection between the picker and support, and an adjustable fulcrum for the picker. 5th. A knitting-machine comprising in its construction a rotary cam-ring having a vertically-movable cam mounted thereon, a cup-shaped bearing for said ring, and a vertically movable plate inclosed within said bearing and adapted to control the elevation of said cam. 6th. In a knitting-machine, the combination with the cup-shaped bearing supported by the frame, of the ring 70 supported by said bearing and carrying independently-movable cams, and cam-operating mechanism inclosed in said bearing below the ring 70. 7th. A knitting-machine comprising in its construction a main shaft having a single driving or fast pulley and a single loose pulley adjacent thereto, a shipper for shifting a driving-belt from one to the other, and a disc having a

plurality of cam-lugs of different thickness for automatically operating the shipper temporarily during the operation of the machine and for completely operating the shipper at the completion of the knitting. 8th. In a knitting-machine the combination with shaft 30, and means for rotating it, of the disc 50 secured thereon and having a series of grooves 51 forced across its periphery in alternately opposite directions, a clutch and gearing for controlling the operation of parts of the machine, a yielding pivoted arm 53 having connections for operating the clutch, and having its lower end adapted to successively pass through the grooves in the disc 50, said arm normally tending in a direction toward the center of the face of the disc. 9th. In a knitting-machine, the combination with shaft 30 and means for rotating it, of the disc 50 secured thereon and having a series of grooves 51 formed across its periphery in alternately opposite directions, a clutch and gearing for controlling the operation of parts of the machine, a rock-shaft having a yoke for operating the clutch, and a spring-arm 33 connected with said rock-shaft and having its lower end engaging the sides or grooves of the disc 50. 10th. In a knitting-machine, the combination with the main shaft having fast and loose pulleys 10 and 12, of a belt-shifting lever 63 having a pin or roller 63, the intermittently-rotated shaft 30 having disc 60, a plurality of cams 61 on said disc for engaging the pin or roller 62, one of said cams being thicker than the others, and a spring-catch to engage and hold the lever when operated by the thickest cam. 11th. In a knitting machine, the combination with the ring 76 supported by the frame of the machine and carrying an adjustable stop 81, of the web guide 75 supporting the needle cylinder and adapted to rest on said stop, a lever for engaging the web guide to elevate it and the needle cylinder, and means for operating said lever. 12th. A knitting machine comprising in its construction a cam ring carrying needle elevating and draw cams, the latter being adapted to yield in a radial direction to ride over the ends of the needle heels when moving backward. 13th. A knitting machine comprising in its construction a cam ring carrying a curved web having inclined ends for raising the needles, and a pair of draw cams yieldingly mounted on the ring and having surfaces adapted to be acted on by the ends of the needle heels to move said draw cams away from the needle cylinder when rotating backward. 14th. In a knitting machine, the combination with the cam ring 70 carrying the web 82 having cams 83, of the draw cams 85 mounted on slides 87 guided by the ring, and springs adapted to yieldingly press said cams toward the needle cylinder. 15th. In a knitting machine, the combination with the cam ring 70 carrying the web 82 having cams 83, of the guides 88 mounted on the ring, the spring pressed slides 87 in said guides, and draw cams carried by said slides. 16th. In a knitting machine, the combination with the cam ring 70 carrying the web 82 having cams 83, of the guides 88 mounted on the ring, the spring pressed slides 87 in said guides, and flat faced blocks 85 carried by said slides and adapted to ride over the ends of the needle heels when moving in one direction, each of the said blocks 85 having a portion 84 provided with a cam surface to act on the tops of the needle heels when moving in the other direction. 17th. A knitting machine comprising in its construction a needle cylinder and a series of needles a portion of which have heels longer than those of the remaining needles, and a cam adapted to rotate about the cylinder in a plane below the needle heels and to be moved to a higher plane of rotation, said cam being arranged at a distance from the cylinder to escape the short heel needles but to engage and elevate the long heel needles out of action, said cam carrying with it another cam adapted to engage the long heels to return them to their lower positions. 18th. In a knitting machine, the combination with the cylinder having needles with long and short heels, of the cam ring 70, a cam 90 mounted on a vertically movable support carried by said ring, and means for raising and lowering said support. 19th. In a knitting machine, the combination with the cylinder having needles with long and short heels, of the cam ring 70, a plate 92 having a pin 93 projecting through and below the ring, a cam 90 carried by the plate 92, and a circular plate 95 below the path of movement of the pin 93 and means for raising and lowering said plate. 21st. In a knitting machine, the combination with the cylinder having needles with long and short heels, of the cam ring 70, a plate 92 having a pin 93 projecting through and below the ring, a cam 90 carried by the plate 92, an arm 96 having a cam 97 also carried by the plate 92, and a circular plate 96 below the path of movement of the pin 90 and means for raising and lowering said plate. 22nd. A knitting machine comprising in its construction a series of needles some of which have longer heels than the others, a picker having a yielding universal joint connection with a non-reversible support movable past the needles, said picker having horizontal lugs or shoulders at its end and a vertical lug or shoulder above and below the horizontal lugs to engage the needle heels and means for causing said picker to swing in an inclined direction. 23rd. In a knitting machine, the combination with the needles some of which have shorter heels than the others, of the ring 70, a standard carried thereby, the picking finger 105 having a yielding universal joint connection with the standard and having its face provided with two vertical and two horizontal lugs, and the cam plate 115 having a plurality of cam surfaces to guide the finger in its swinging movements. 24th. In a knitting machine, the combination with the needles some of which



have shorter heels than the others, of the ring 70, a standard carried thereby and having a vertical recess, the spring depressed plunger 103 in said recess, the picker 105 pivoted to said plunger, a fulcrum for said picker, spring connections for normally holding the picker in intermediate lateral position, and the cam plate 115 having a plurality of cam surfaces to guide the finger in its swinging movements. 25th. In a knitting machine, the combination with the needles some of which have shorter heels than the others, of the ring 70, a standard carried thereby and having a vertical recess, the spring-depressed plunger 103 in said recess, the picker 105 pivoted to said plunger, a movable fulcrum for said picker, spring connections for normally holding the picker in intermediate lateral position, and the cam plate having a plurality of cam surfaces to guide the finger in its swinging movements. 26th. In a knitting machine the combination with the needles some of which have shorter heels than the others, of the ring 70, a standard carried thereby and having a vertical recess, the spring depressed plunger 103 in said recess, the picker 105 pivoted to said plunger, a lever pivoted to the standard and having a fulcrum 110 for the picker, means for automatically chaining the position of the lever 111 and the fulcrum, springs for holding the picker in intermediate lateral position, and the cam plate 115 having a plurality of cam surfaces to guide the finger in its swinging movements. 27th. In a knitting machine, the combination with the needles, some of which have shorter heels than the others, of the ring 70 carrying the plate 115 having an opening formed with upper and lower inclined edges 116 and 117 and horizontal slots 118, and a picker 105 having a yielding universal joint connection with the ring and extending through the opening in plate 115 and provided with faces on its end to act on the sides and upper and lower edges of heels of the needles. 28th. In a knitting machine, the combination with the needles, some of which have shorter heels than the others, of the ring 70, a standard carried thereby, the picking finger 105 having a yielding universal joint connection with the standard and having its face provided with two vertical and two horizontal lugs, and a cam plate for guiding the finger in an inclined direction, and a guard 119 for limiting the upward movement of the needles under the impulse of the picking finger. 29th. In a knitting machine, the combination with the sinker bed 121 secured to the needle cylinder and paving flange 123 of the cam ring 124 mounted on said flange, means for rotating said ring, sinkers guided in the bed 121 and having upper and lower shoulders at different distances from their ends, the upper shoulders being adapted to limit the inward movements of the sinkers, a double cam 129 carried by ring 124 and adapted to act on the lower shoulders of the sinkers to move them outward, and cams 130 carried by the ring to move them inward. 30th. A knitting machine, comprising in its construction a needle cylinder and latch needles mounted therein, and a pivoted latch guard ring and yarn changing device support adapted to be swung out of position. 31st. In a knitting machine, the combination with the needle cylinder and latch needles carried thereby, of a standard mounted to rotate around the cylinder, the arm 135 carrying yarn changing devices and the latch guard ring 134 and pivoted to said standard, and means for supporting the other end of the arm 135. 32nd. In a knitting machine, the combination with the needle cylinder and latch needles carried thereby, of a standard mounted to rotate around the cylinder, the arm 135 carrying yarn changing devices and the latch guard ring 134 and pivoted to said standard, the standard 101 opposite the first mentioned standard, and guide plates for the end of the arm on the standard 101. 33rd. In a knitting machine, the combination with the slides 138 and 139 having yarn guide eyes at one end and laterally projecting arms 144 near their outer ends, a support for said slides, the lever 145 pivoted to said support and extending between the arms 144, means for directly moving one or the other of said slides inward, and laterally projecting stops for limiting the movement of the lever 145 and the slides. 34th. In a knitting machine, the combination with the slides 138 and 139 having yarn guide eyes at one end and laterally projecting arms 144 near their outer ends, a support for said slides, the lever 145 pivoted to said support and extending between the arms 144, means for directly moving one or the other of said slides inward, stops 146 carried by the slides, a fixed stop 147, and laterally projecting fixed stops 148 for the ends of the lever 145. 35th. In a knitting machine, the combination with the needle cylinder and needles and yarn changing devices, of the hinged arm 135 and a curved web guide 149 carried by said arm and having a recess 152 in its outer edge to hold one of the yarns when not in use. 36th. In a knitting machine, the combination with the needle cylinder and needles and yarn changing devices, of the hinged arm 135 and a curved web guide 149 carried by said arm and having a recess 152 in its outer edge, said recess having hooked ends to prevent the escape from said recess of the yarn which is not in use. 37th. In a knitting machine, the combination with the yarn changing slides 138 and 139, having rolls projecting upward and downward respectively, of a pair of cam plates 160 adapted to be moved into and out of the path of movement of the outer ends of the slides, and means for automatically shifting the position of said cam plates. 38th. In a knitting machine, the combination with the yarn changing slides 138 and 139, having rolls projecting upward and downward respectively, of a pair of cam plates 160, a vertically movable rod 155 for lifting and lowering the cam plates, and an automatically controlled lever for elevating the rod 155. 39th. In a knitting machine, the combination

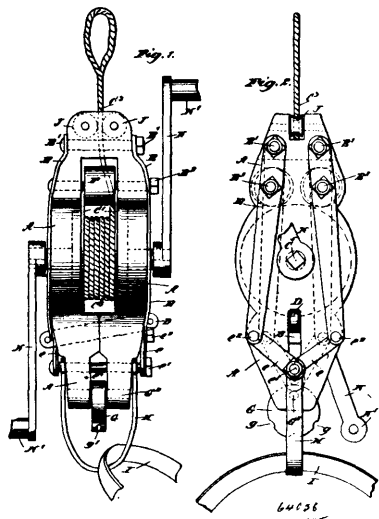
with the rod 155 and means for moving it vertically, of the cam plates 160 carried thereby, the cams 113 having a sleeved connection with said rod and adapted to be elevated thereby, and yarn changing and needle operating devices controlled by said cam. 40th. In a knitting machine, the combination with the rod 155 and means for moving it vertically, of the cam plates 160 carried thereby, the cams 113 having a sleeved connection with said rod, a yielding connection whereby the elevation of the cams 160 first elevates the cams 113 and then permits the latter to drop, and yarn changing and needle operating devices controlled by said cams. 41st. In a knitting machine, the combination with the vertically movable rod 155, of the arm 158 secured thereto and carrying cams 160, the arm 162 carrying cams 112 and sleeved on the rod, connections whereby the latter is elevated by the movement of the arm 158, and a guide pin 161 for preventing rotary movement of the arms and their cams. 42nd. In a knitting machine, the combination with the vertically movable rod 155 and means for giving it two elevations, of the cam carrying arms 158 and 162, respectively secured to and sleeved on the rod, and a separable connection between the two arms whereby the first elevation of the rod lifts both arms together and the second elevation separates the connections and permits the lower arm to descend. 43rd. In a knitting machine, the combination with the vertically movable rod 155, and means for giving it two elevations, of the cam carrying arms 158 and 162, respectively secured to and sleeved on the rod, a pin 164 projecting from the arm 162, a spring 166 connected with the arm 158 and having a lug 165 adapted to engage the pin 164 and having an inclined lower side 168, and means for automatically releasing the lug from the pin after it has been raised a predetermined distance. 44th. In a knitting machine, the combination with the vertically movable rod 155 and means for giving it two elevations of the cam carrying arms 158 and 162, respectively secured to and sleeved on the rod, a pin 164 projecting from the arm 162, a spring 166 connected with the arm 158 and having a lug 165 adapted to engage the pin 164 and having an inclined lower side 168, the said spring having a curved lower end 169, and a finger 170 over which the end 169 moves to release the lug 165 from the pin 164. 45th. In a knitting machine, the combination with the shaft 30 carrying cams 173, 175, of the lever 156 having an arm 177 provided with steps 178 and 180, a throwing out cam 90 vertically movable by means of a downwardly projecting pin 93, and the plate 95 having a rod 184 resting on the upper end of the arm 177. 46th. In a knitting machine, the combination with the shaft 30 carrying cams 173, 175, of the lever 150 extending rearwardly, the sliding rod 155 resting on said lever, vertically movable cams connected with said rod for controlling the operation of parts of the machine, an arm 177 of the lever 156 provided with steps 178 and 180 at its upper end, and a throwing out cam controlled by the movements of said arm 177. 47th. In a knitting machine, the combination with the needle cylinder and a support therefor, the former having a recess with tapering sides, of a yielding bar secured to the support and having a tapered lug extending through an opening in the support into the recess of the cylinder, the said bar having a lug or projection 200 near its end resting against the inner wall of the support, and screws 201 for adjusting the pressure exerted by said bar and lug. 48th. A knitting machine comprising in its construction needles, mechanism for reciprocating them, and a cam for levelling all the needles in a single plane corresponding with one of the two extremes of reciprocation of the needles when knitting. 49th. A knitting machine, comprising in its construction needles, mechanism for reciprocating them, automatic stop devices for stopping the machine when a stocking is completed, and cam mechanism for levelling all the needles after their disengagement from the stocking in a single plane corresponding with the upper limit of reciprocations of the needles when knitting. 50th. A knitting machine comprising in its construction a circular series of needles, cams for reciprocating them, means for automatically stopping the machine when a stocking is completed, and means for operating the cam by hand after the completion of a stocking to first permit the needles to be disengaged from the stocking and then arrange them in a uniform plane, corresponding with the upper limit of reciprocations of the needles when knitting, to receive the cuff of the next stocking. 51st. A knitting machine comprising in its construction a circular series of needles, and cams for reciprocating them, the draw cams being mounted to yield outwardly from the needles and having flattened inner faces adapted to ride over the outer ends of the heels of the needles when travelling backward.

#### No. 64,056. Fire Escape. (*Sauveteur d'incendie*.)

The Automatic Fire Escape Company, assignee of Daniel Agnew and James Omar Miller, all of Rochester, New York, U.S.A., 29th September, 1899; 6 years. (Filed 23rd March, 1899.)

*Claim.*—1st. In a fire escape, comprising pivoted levers, friction devices carried thereby, a suspending cord passing between the friction devices, a toggle joint connection at the lower ends of said levers, a weight suspending connection at the centre of said toggle joint, and means for raising the centre of said toggle joint at will, substantially as described. 2nd. A fire escape, comprising pivoted levers, friction rollers carried thereby and embracing the weight supporting cord, levers pivoted as a toggle joint to the said pivoted levers and to each other, a weight suspending device connected to the central pivot of the toggle joint, and means for raising said central pivot at will, substantially as described. 3rd. A fire escape, comprising pivoted levers, friction devices carried thereby, a sus-

pending cord engaged by the friction devices, a toggle joint connection at the lower ends of said levers, a weight suspending connection



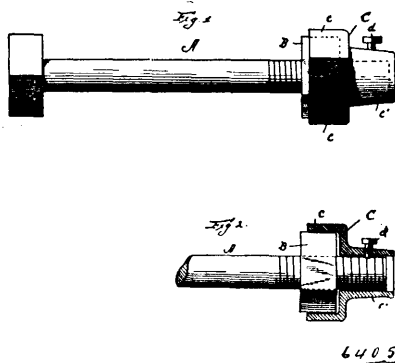
at the centre pivot of said toggle joint, and a cam pivoted beneath the central pivot of said toggle joint by which said levers may be raised to separate the levers and their friction devices, substantially as described. 4th. A fire escape, comprising pivoted levers, friction devices carried thereby, a suspending cord passing between the friction devices, a toggle joint connection at the lower ends of said levers, a weight suspending connection at the centre of said toggle joint, a cam pivoted beneath the central pivot for said toggle joint and having notches adapted to engage and lock with said pivot, and means by which said cam may be turned by hand, substantially as described. 5th. A fire escape, comprising a casing, a cord carrying drum pivoted therein, levers pivoted to the casing, friction devices carried by said levers and engaging the suspending cord, weight suspending connections to said levers acting to clamp the friction devices, and means for loosening the friction devices at will, substantially as described. 6th. A fire escape, comprising a casing, a cord carrying drum pivoted therein, a toothed wheel attached to the drum, an escapement engaging therewith, levers pivoted to the casing, friction devices carried by said levers, an engaging suspending cord, weight suspending connections to said levers acting to clamp the friction devices, and means for loosening the friction devices at will, substantially as described. 7th. A fire escape, comprising a casing, a cord carrying drum pivoted therein, levers pivoted to the casing, friction devices carried by said levers and engaging the suspending cord, weight suspending connections to said levers, acting to clamp the friction devices, a cam adapted to engage the weight suspending connections to relieve the friction devices, and means for operating the cam at will, substantially as described. 8th. A fire escape, comprising a casing, a cord carrying drum pivoted therein, two levers pivoted on each side of the casing, friction rollers carried by said levers between which the cord passes, links pivoted to the lower ends of said levers and to each other, a weight suspending yoke or stirrup pivoted to the central pivot of said links, a cam pivoted in the casing and adapted to engage said central pivot, and means for rotating said cam at will to raise said pivot, substantially as described. 9th. A fire escape, comprising a cord carrying drum pivoted therein, a toothed wheel attached to each side of said drum, escapements comprising longitudinally movable bars having projections engaging opposite sides of said pivot wheels, a pivoted lever engaging said bars to insure their alternate action, and means for locking the drum, when desired, substantially as described. 10th. A fire escape, comprising a casing, a cord carrying drum pivoted therein, a toothed wheel attached to each side of said drum, escapements comprising longitudinally movable bars having projections engaging opposite sides of said pivot wheels, a pivoted lever engaging said bars to insure their alternate action, and a crank attached to the drum shaft by which the cord may be wound in, substantially as described.

**No. 64,057. Nut Lock. (Arrête-écrou.)**

Henry Lerew, Butte, Montana, U.S.A., 29th September, 1899; 6 years. (Filed 25th May, 1899.)

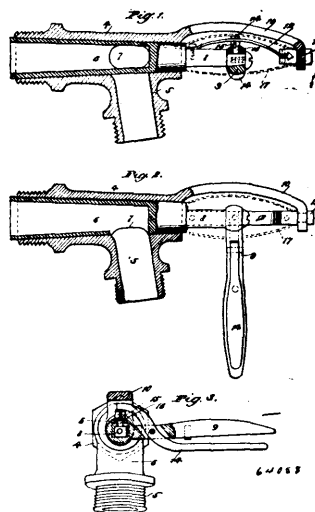
*Claims.*—1st. In a nut lock, a multiple sided shoulder, adapted to fit over a nut and having a collar extending from its upper surface, said collar having a screw threaded opening in its side adapted to receive a screw or bolt, substantially as shown and described. 2nd. In a nut lock, the shoulder C having on its upper surface and integral therewith a collar c, slightly tapering towards its outer

end, said collar having a passage throughout, to receive a rod or bar, a threaded opening in the side of said collar and a threaded



screw or bolt adopted to pass through said opening and engage said rod or bar, substantially as shown and described.

**No. 64,058. Faucet. (Robinet.)**



Enos Wells Thayer, Nashua, New Hampshire, U.S.A., 29th September, 1899; 6 years. (Filed 26 May, 1899.)

*Claim.*—1st. A faucet having a casing with a tapering bore and with a nozzle disposed transversely to the bore, a tapering hollow plug fitted in the bore to turn and slide the plug having a transversely disposed orifice formed therein to register with the nozzle, and means in connection with the plug whereby to slide and turn the plug. 2nd. The combination of a casing, a tapering plug thereby to slide and turn the plug. 2nd. The combination of a casing, a tapering plug therein, an arm reaching out from the casing, a bowed spring bearing against the arm and against the plug, a handle in connection with the plug to turn the same, and a lever fulcrumed on the handle and engaging the spring to flex the spring and slide the plug. 3. The combination of a casing, a plug mounted to turn therein, an arm attached to the casing, a spring bearing between the arm and plug, and means for turning the plug and for flexing the spring. 4th. The combination of a casing, a plug turning therein, an arm reaching out from the casing, and a bowed spring bearing between the arm and plug, the spring upon being flexed being capable of sliding the plug. 5th. A combination of a casing, a plug mounted to turn therein, and a bowed spring bearing against the plug, the spring upon being flexed being capable of sliding the plug. 6th. The combination of a casing, a plug turning therein, a bowed spring bearing against the plug and capable when flexed of sliding the plug, an operating handle attached to the plug, and a lever fulcrumed on the plug and pressing the bowed spring, whereby said spring is flexed simultaneously with the operation of the handle.

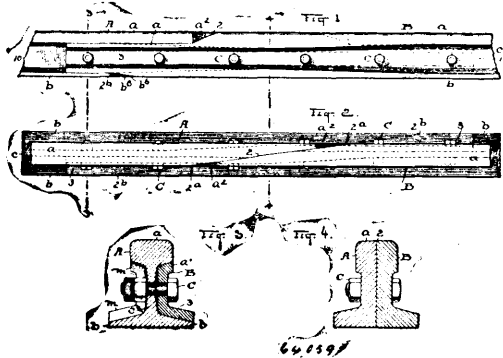
**No. 64,059. Railway Rail. (Rail de chemin de fer.)**

Alfonso Deray Gates, Cleveland, Ohio, U.S.A., 29th September, 1899; 6 years. (Filed 29th May, 1899.)

*Claim.*—1st. As a new article of manufacture, a railroad rail having a mitred end and a tongue projecting beyond said end and located laterally outside the plane of the web and parallel thereto, and the head and the flange on the outer side of the rail opposite the said mitre formed with gradually increasing depth and the web

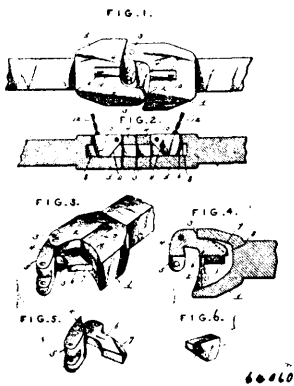


thickest where said mitre begins thereon, substantially as described. 2nd. A railroad rail having its end formed with a long vertical



mitre and a tongue having its base in said mitred portion and projected in a plane parallel to the web of the rail, and the said web thickened laterally on its outside near the middle of said mitre and tapered on its opposite side from said thickest point to the immediate base of the tongue, substantially as described. 3rd. The rail substantially as shown and described, having a vertically and transversely mitred end and the head and flange on the outer side of said end gradually deepened toward each other over the web, and a tongue projecting beyond said mitred end and having portions of the head and flange of the rail continued thereon, the said tongue being outside the plane of the web from end to end, substantially as described. 4th. A railroad rail having a tongue at its extremity outside the plane of its web and parallel thereto and provided with bolt holes, and a vertical straight bevel across the end of the rail at the base of said tongue, and the web, flange, and head of the rail deepening uniformly with each other in cross section toward the base of the tongue to the point where the said bevel begins to the web of the rail on its inside, and the deepening of the head and flange continuing past this point, substantially as described. 5th. A pair of rails having each a tongue parallel to and outside the normal line of the web and engaged between the head and flange of the opposite rail, and the web of each rail deflected bodily to one side of its normal line at the base of said tongue and gradually thickened up to the point where the lateral deflection begins and tapered thence to the tongue, and bolts through said webs and tongues locking the rails together, substantially as described. 6th. In railway rails, a rail having its end finished with a straight vertical bevel and the web of the rail gradually thickened as the bevel is approached to increase its strength, and having a tongue projecting beyond the bevel and wholly at one side of the normal plane of the web, substantially as described. 7th. A railway rail having its ends formed with a straight transverse bevel and the head of the rail gradually deepened down upon the web of the rail opposite said bevel, and having a tongue projecting beyond said bevelled end, and having the flange of the rail continued on one side thereof, substantially as described. 8th. The rail substantially as described having its end finished with a straight transverse bevel and a tongue projected beyond said bevel and the flange on the base of the rail opposite said bevel gradually deepened toward the bevelled off extremity of the rail at the base of said tongue, substantially as described.

**No. 64,060. Car Coupler. (Attelage de chars.)**

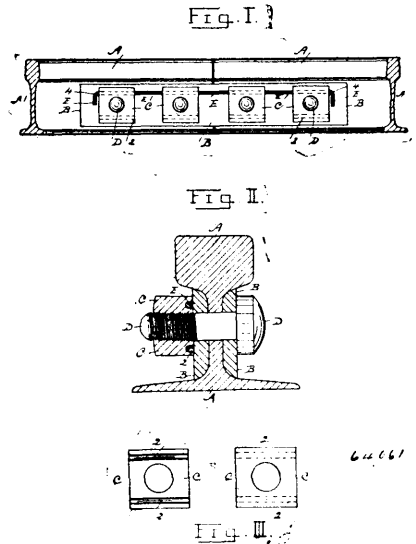


William L. B. Carter and Elisha A. Carter, both of Corinth, Mississippi, U.S.A., 29th September, 1899; 6 years. (Filed 26th April, 1899.)

*Claim.*—1st. In a car coupler, the combination with a draw head, having a recess or cavity, and a central longitudinal open slot in the top of the draw head intersecting said recess and extending to the forward edge of the draw head, and a centrally located gravity dog

pivotaly suspended in its upper forward corner in said slot and above the draw head cavity, and having its forward edge inclined from the top to the bottom of the draw head cavity, the pivot of said dog being located at a greater distance from the rear edge of the dog than its lower edge, and said dog when in its normal position lying flush with the upper surface of the draw head and closing said slot, of a pivotaly mounted swinging knuckle having an engaging portion, and a laterally extending arm, the upper edge of which is bevelled to co-operate with the inclined forward edge of the dog, the construction adapting the coupler to be used in an emergency in connection with the link of an ordinary link and pin coupler, the inner end of the link being adapted to pass entirely behind the dog and its pivot, substantially as described.

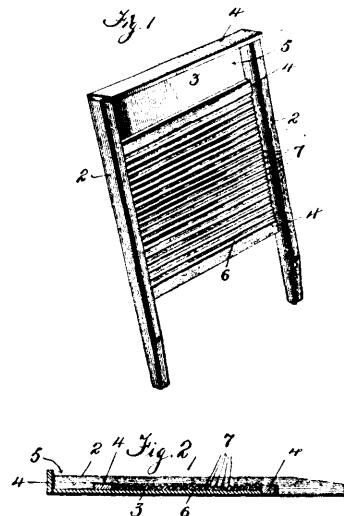
**No. 64,061. Nut Lock. (Arrêt-écrou.)**



John Cart, Hamilton, Ontario, Canada, 29th September, 1899; 6 years. (Filed 29th April, 1899.)

*Claim.*—1st. A nut for bolts of the character described, consisting of the nut having two parallel grooves extending across the face side thereof on said groove at each side of the bolt hole, as described. 2nd. A lock for nuts of the character described, comprising a nut having a groove at each side of the bolt hole and extending in parallel form across the face thereof, a rod capable of passing through one of said grooves of two or more nuts, and extending beyond and bent, to prevent the nut or nuts from turning loose on their bolts, as described.

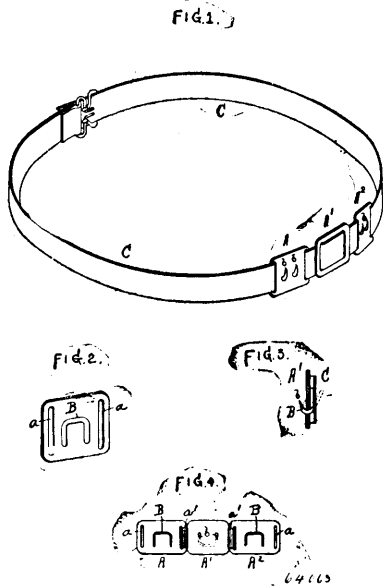
**No. 64,062. Wash Board. (Planche à laver.)**



Gaspard Daigneault, St. Chrysostome, Quebec, Canada, 29th September, 1899; 6 years. (Filed 14th March, 1899.)

*Claim.*—A washboard having a glass rubbing surface, said surface having its top provided with lateral corrugations and secured to the board by means of the side bars 3 and the cross bars 4, substantially as described.

**No. 64,063. Waist Belt. (Ceinture.)**

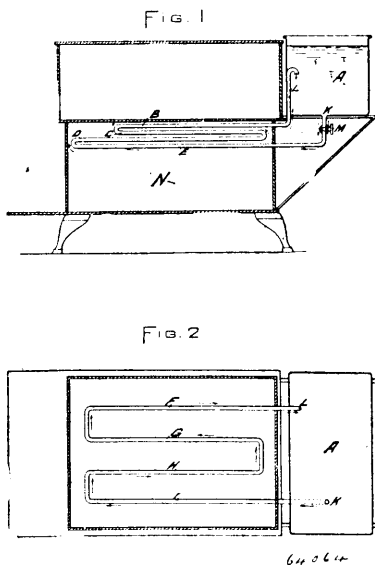


Clement L. Stephenson, New York City, New York, U.S.A., 29th September, 1899; 6 years. (Filed 31st May, 1899.)

*Claim.*—1st. As a new article of manufacture, a waist belt attachment, consisting of a plate adapted to be secured to a belt and having a hook piece with a pair of bent points passing through openings in the plate and to be held in operative position by the belt, substantially as described. 2nd. As a new article of manufacture, a waist belt attachment, consisting of a plate provided with a pair of sharpened hooks and also provided with slots through which the belt may be passed, substantially as described. 3rd. As a new article of manufacture, a waist belt provided with three plates secured thereto and having hooks, one plate with its hooks projecting inwards of the belt and the others with their hooks projecting outwards. 4th. As a new article of manufacture, a waist belt provided with plates having slots through which the belt is threaded, and said plates provided with hooks, some projecting inwards and some projecting outwards of the belt.

**No. 64,064. Hot Water Furnace.**

(Fournaise à eau chaude.)



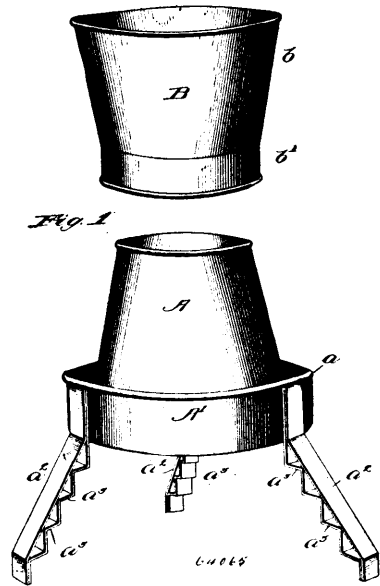
François-Xavier St. Jean, St. Gabriel de Brandon, Québec, Canada, 29 septembre 1899; 6 ans. (Déposé 9 juin 1899.)

*Résumé.*—1° La combinaison, dans un poêle ordinaire, d'un réservoir de forme quelconque servant de chaudière, et muni d'un serpentín qui circule à la partie supérieure du foyer du poêle, tel

que substantiellement décrit. 2° La combinaison, dans un poêle ordinaire muni d'un réservoir, d'un serpentín à deux ou plusieurs branches repliées sur elles-mêmes dans un plan vertical ou horizontal, tel que substantiellement décrit. 3° La combinaison dans un réservoir attaché à un poêle ordinaire, d'un serpentín dont la prise d'eau, pour son alimentation, est pratiquée sur le fond même du réservoir, tandis que son retour s'effectue par un tube vertical situé le long de la paroi de la chaudière et dont l'extrémité recourbée est à mi-hauteur, de manière à prévenir les chocs et les vibrations et à ménager une circulation constante et uniforme, le tout tel que substantiellement décrit.

**No. 64,065. Milk Cooler and Aerator.**

(Garde et aérateur à lait.)



John Howie, St. John's, Quebec, Canada, 29th September, 1899; 6 years. (Filed 1st June, 1899.)

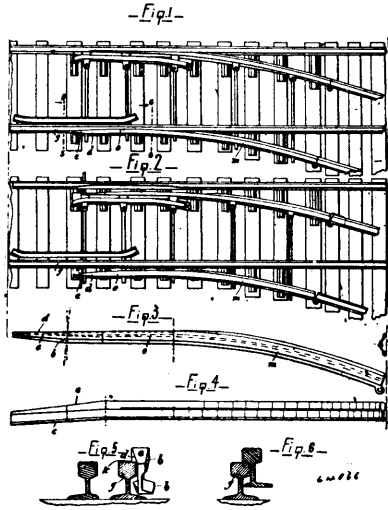
*Claim.*—1st. A combined milk cooler and aerator, comprising a reservoir having an inclined surface, a pan secured to and surrounding said reservoir having perforations for the discharge of the milk, and a receiver removably secured to the top of said reservoir and having perforations in its bottom communicating with the inclined surface of said reservoir, substantially as described. 2nd. A combined milk cooler and aerator, comprising a reservoir having an inclined surface, a pan secured to and surrounding said reservoir having perforations for the discharge of the milk, a receiver removably secured to the top of said reservoir, an outer depending flange secured thereto and an inner depending flange secured to said receiver and concentric with said outer edges and adapted to engage the upper portion of the reservoir, said receiver having perforations in its bottom arranged between said flanges for directing the milk upon the surface of said reservoir, substantially as described. 3rd. A combined milk cooler and aerator, comprising a reservoir having an inclined surface, a pan secured to and surrounding said reservoir having perforations for the discharge of the milk, a receiver removably secured to the top of the reservoir, an outer and an inner depending flange secured thereto, the said inner flange adapted to engage with the top of said reservoir, said receiver having perforations in its bottom arranged between said flanges for directing the milk upon the surface of said reservoir, and inclined supporting standards secured to said pan having graduated notches on the inner sides thereof, whereby the device may be secured upon different sizes of receptacles, substantially as described.

**No. 64,066. Railway Switch. (Aiguille de chemin de fer.)**

Duncan MacPherson, Montreal, Quebec, Canada, 29th September, 1899; 6 years. (Filed 5th June, 1899.)

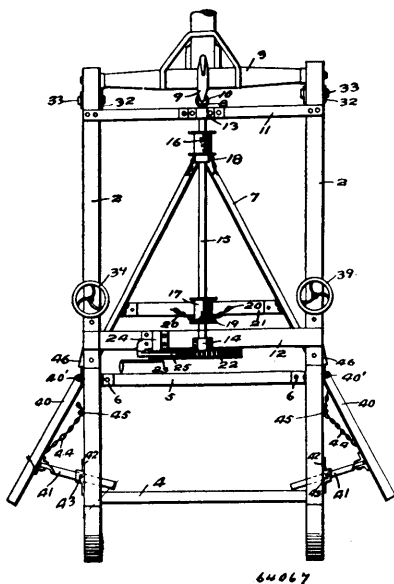
*Claim.*—1st. A movable switch rail comprising a portion bent downwardly, a straight horizontal portion, substantially as described and for the purpose set forth. 2nd. In combination with a stationary rail, of a movable switch rail comprising a portion bent inwardly towards said stationary rail, a straight horizontal portion contiguous to said inwardly bent portion, and a portion curved outwardly from said stationary rail, substantially as and for the purpose set forth. 3rd. In combination with a stationary rail, of a movable switch rail comprising a portion bent downwardly and inwardly towards said horizontal portion contiguous to said inwardly bent portion, and a portion curved outwardly from said stationary rail, substantially as and for the purpose set forth. 4th. In combination with a stationary rail, of a movable switch rail comprising a portion bent inwardly

towards said stationary rail, and having its side adjacent to said stationary rail bevelled substantially as described, a straight hori-



zontal portion contiguous to said inwardly bent portion, and a portion curved outwardly from said stationary rail, substantially as and for the purpose set forth. 5th. In combination with a stationary rail, of a movable switch rail comprising a portion bent downwardly and inwardly towards said stationary rail, and having its side adjacent to said stationary rail bevelled substantially as described, a straight horizontal portion contiguous to said inwardly bent portion, and a portion curved outwardly from said stationary rail, substantially as and for the purpose set forth. 6th. A movable switch rail comprising a horizontally and downwardly bent end portion having one side bevelled substantially as described, a horizontal portion contiguous to said first mentioned portion, a curved portion contiguous to said second mentioned portion and a straight heel portion, substantially as described, and for the purpose set forth.

No. 64,067. Snow Plough. (Charruc à neige.)



Charles L. Tolles, Eau Clair, Wisconsin, U.S.A., 29th September, 1899; 6 years. (Filed 8th June, 1899.)

Claim.—1st. The combination, with a sled runner and a rutting tool thereon, of a shoe for said runner, means for depressing said shoe and thereby elevating said runner and rutting tool, substantially as described. 2nd. The combination, with a sled runner and a rutting tool fixed thereon, of a shoe, means for depressing said shoe and elevating said runner and rutting tool, or permitting said shoe to rise depressing said runner and said rutting tool, substantially as described. 3rd. The combination, with a sled runner and a rutting tool fixed thereon, of a shoe pivotally supported, and means for tilting said shoe to elevate said runner and said rutting tool, substantially as described. 4th. The combination, with a sled runner and a rutting tool fixed thereon, of a shoe pivotally connected

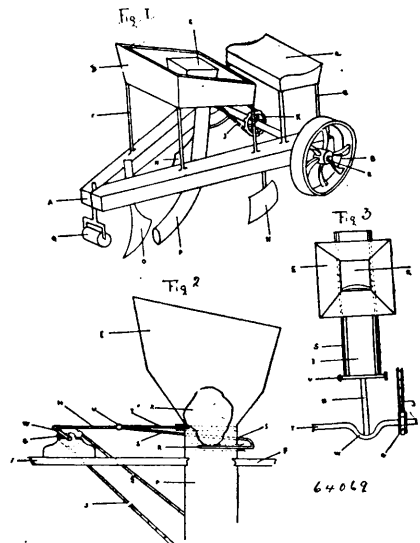
at its forward end to said runner and means for depressing the rear end of said shoe to elevate the runner and rutting tool, substantially as described. 5th. The combination, with a sled runner and a rutting tool carried thereby, of a shoe pivotally connected at its forward end to said runner, means for depressing the rear end of said shoe to elevate the runner and rutting tool or permitting the elevation of said runner to depress said runner and rutting tool, substantially as described. 6th. The combination, with a sled runner and a rutting tool fixed thereon, of a shoe 29 having a head 30 and a face 31 to bear upon the edge of the runner, pivotal connections between said head and said runner, and means for depressing the rear end of said shoe or permitting the elevation of the same, substantially as described. 7th. The combination, with a sled having a recess in the lower edge of its runner and a rutting tool fixed on said runner, of a shoe carried by said runner and enclosing the lower side of said recess, means for raising or lowering said shoe, and a plough provided between the runners of the sled and opposite said recess and through which the snow is discharged at the side of the sled, substantially as described. 8th. The combination, with a sled runner and a rutting tool fixed thereon, of a pivoted shoe carried by said runner, means for operating said shoe to elevate or permit the depression of said runner and tool, an elongated opening being provided between said runner and said shoe and a snow plough having wing or mould boards adapted to direct the snow through said openings at the side of the sled, substantially as described. 9th. The combination, with a sled runner and a rutting tool fixed thereon, of a shoe pivotally connected to the forward end of said runner, an elongated opening being provided between said shoe and said runner, a plough arranged to operate inside said runner and to discharge the snow and ice through said elongated opening, means for depressing said shoe to elevate said runner in the rear of said rutting tool, substantially as described. 10th. The combination, with a sled runner, of a shoe carried by said runner, a rutting tool also supported by said runner and a rod 36 having its lower end in engagement with said shoe and vertically adjustable in said runner, whereby said shoe may be depressed or permitted to rise to throw said rutting tool out of or into engagement with the surface of the road, substantially as described. 11th. The combination, with a sled runner and a rutting tool thereon, of a shoe for said runner, and means for depressing said shoe to prevent the formation of a rut, substantially as described. 12th. The combination, with a sled runner and a rutting tool thereon, of a shoe for said runner, and means within the control of the operator for permitting or preventing the formation of a rut by said tool without altering the adjustment or position of said tool, substantially as described.

No. 64,068. Method of Preparing Brown Lorrigan Leather. (Méthode de préparer le cuir.)

William Hugh Mackenzie, Bridgetown, Nova Scotia, Canada, 29th September, 1899; 6 years. (Filed 17th April, 1899.)

Claim.—1st. The herein described composition of matter consisting of water and hemlock bark, substantially as described and for the purpose specified. 2nd. The herein described composition of matter in the manufacture, tanning and colouring of brown lorrigan leather consisting of pure water five hundred gallons, and hemlock bark one hundred bushels, substantially as described.

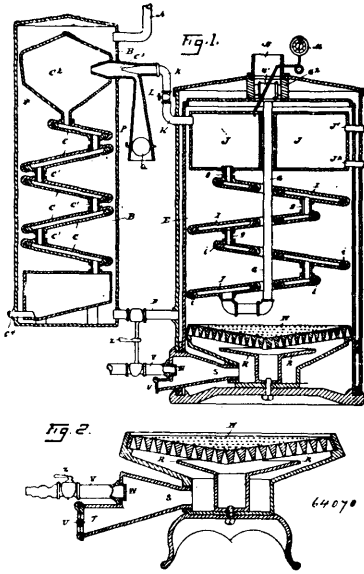
No. 64,069. Machine for Cutting and Planting Potatoes. (Machine à trancher et planter les patates.)



John Frederic McCann, Toronto, Ontario, Canada, 29th September, 1899; 6 years. (Filed 14th October, 1898.)

*Claim.*—In a potato planter, the supply hopper D mounted upon standards C on the frame A, provided with a central funnel E and conductor P, in combination with the reciprocating frame carrying the false bottom R and knife I, whereby the potatoes are cut and alternately discharged into the furrow formed by the plough O, and covered by the blades N N, all substantially as shown and described.

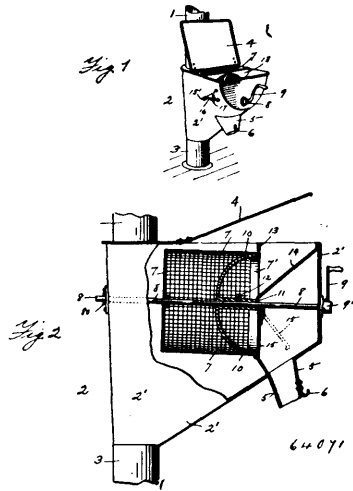
**No. 64,070. Water Heater. (Chauffeur d'eau.)**



James McCartney, Oakland, California, U.S.A., 29th September, 1899; 6 years. (Filed 4th March, 1899.)

*Claim.*—1st. A water heater consisting in the combination, with a double heating chamber E, the walls of which are separated to leave a narrow space between and provided with an inlet pipe D, opening into the lower portion of the said space between the walls, a series of flattened chambers, I, I, the sides of which are separated to leave a narrow space between and are inclined to convey the heat upward to deliver it against the lower portions of the next succeeding flattened chamber above, a suitable conduct, or pipe G, leading from the upper portion of the heating chamber and connecting the space between the walls thereof with the lower portion of the lowermost flattened chamber of the said series, and a suitable heating device H, located below the lowermost of the series of flattened chambers. 2nd. A water heater, consisting in the combination of a circulation system, I I, in which the water is spread into thin layers, and in that form subjected to heat, a reservoir J, adapted to contain the waters after being heated, located in the upper part of the heating chamber or cylinder E, a vent N, opening from the top of the heating cylinder for the escapement of the heated air and provided with a damper O, adapted to close the said vent to prevent the escapement of the heated air, and faucets J<sup>1</sup>, J<sup>2</sup>, extending through the side of the said cylinder and entering the said reservoir at a high and low water level thereof. 3rd. In an apparatus for distilling water, the combination of a circulatory system consisting in two series of connected flattened chambers I, I, and C, adapted to spread the water and steam in thin layers, with a broken connection between the two series consisting of two pipes C<sup>3</sup>, and K, the one connected with the steam generating series of chambers, and inserted in the other pipe which is connected with the condensing series of chambers, and the other pipe provided with an air inlet P, for mixing the air with the steam, a heating chamber, E to enclose the first of the series of flattened chambers I, and provided with a suitable heat producing attachment H, and a cooling tank B, to enclose the last of said series and adapted to maintain cool water in contact with the said condensing series of chambers. 4th. A gas heater consisting in the combination of a grate bar adapted to fit over the top of a closed mixing chamber, with the said mixing chamber being provided with two inlets W and T, the one for gas, and the other for atmospheric air, and a closure U, for the said inlet for the atmospheric air adapted to be opened. 5th. A gas heater consisting in the combination of a grate bar provided with a number of conical openings of a mixing chamber provided with one inlet T, for atmospheric air, and one, W, for gas, a closed bottom for the said grate, a deflecting hood B, mounted upon a standard within the said chamber to spread the combustible compound, as it rises to the grate bar, to distribute the same, and a damper U, adapted to be regulated to admit or exclude the atmospheric air from the said mixing chamber.

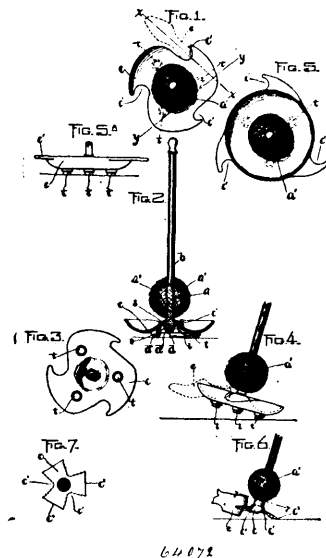
**No. 64,071. Ash Sifter. (Crible à cendre.)**



Joseph Noel Grenier, Worcester, Massachusetts, U.S.A., 29th September, 1899; 6 years. (Filed 10th May, 1899.)

*Claim.*—1st. In an ash sifter, the combination with a box or case having an oval or curved shaped delivery chute for the discharge of the coal, a transverse inclined partition through the upper front part of the box, and a swinging damper below said partition, of an inclined shaft within the box, having a handle on one end thereof, a rotary sifter mounted on said shaft to turn therewith, with its front end open, substantially as shown and described. 2nd. In an ash sifter, the combination with a box or case having an oval or curved shaped delivery chute for the discharge of the coal, a transverse inclined partition through the upper front part of the box, and a swinging damper below said partition, of an inclined shaft within the box, having a handle on one end thereof, a rotary sifter mounted on said shaft to turn therewith, with its front end open, and having supporting arms connected with a sleeve or hub secured on said shaft, substantially as shown and described. 3rd. In an ash sifter, the combination with a box or case having an oval shaped delivery chute for the discharge of coal, and a movable cover on the top of the case, and an inclined partition within the case at the front portion thereof, and a swinging door or damper below said partition, and means for moving the same and holding the same closed, of an inclined shaft extending within said case or box, and turning in bearings thereon, and provided with a handle and a rotary sifter open at its front end, and having supporting arms and a hub or sleeve thereon secured to the shaft, to cause the sifter to revolve therewith, substantially as shown and described.

**No. 64,072. Boot Cleaner. Nettoyeur de chaussures.)**

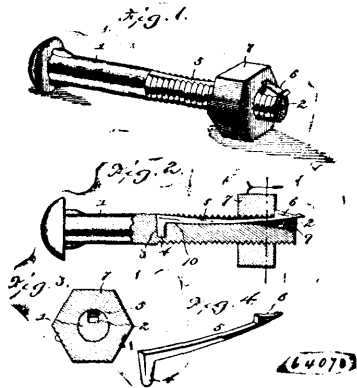


Edgar Shaw, Swampscott, Massachusetts, U.S.A., 29th September, 1899; 6 years. (Filed 22nd May, 1899.)

*Claim.*—1st. A boot cleaner having a foot provided with a recess for the reception of the heel of a shoe, said foot having provisions

for affording an extended bearing on the floor when the foot is tipped, substantially as described. 2nd. A boot cleaner having a foot provided with a raised margin formed to serve as a scraper, the upper surface of the foot being depressed within said margin to form a dirt receptacle. 3rd. A boot cleaner having a foot provided with a raised margin formed to serve as a scraper, a recess in said margin for the reception of the heel of a shoe, and three or more studs projecting from the lower surface of the foot, two of said studs forming an extended bearing on the floor when the foot is tipped, substantially as described. 4th. A boot cleaner having a foot provided with a recess for the reception of the heel of a shoe, provisions for affording an extended bearing on the floor when the foot is tipped, and means for flexibly connecting the foot with the floor to permit the tipping of the foot and prevent its unauthorized removal. 5th. A foot cleaner, comprising a brush having a long handle, and a foot to sustain said brush, said foot having a recess to receive the heel of a shoe, and provisions for affording an extended bearing on the floor when the foot is tipped. 6th. A boot cleaner, comprising a brush having a long handle, and a foot to sustain said brush, said foot having a raised margin to form a scraper, and a depressed upper surface within said margin and below the brush, to form a dirt receptacle. 7th. A boot cleaner, comprising a brush having a long handle, and a foot to sustain said brush, said foot having a heel receiving recess arranged to permit a tangential position of a shoe engaged with said recess, substantially as described. 8th. A boot cleaner, comprising a brush having a long handle, a foot to sustain said brush, said foot having a heel receiving recess arranged to permit a tangential position of a shoe engaged with said recess, and means for giving the foot an elongated bearing on the floor when the foot is tipped.

**No. 64,073. Nut Lock. (Arrête-écrou.)**



John C. Snyder, Bowling Green, Ohio, U.S.A., 29th September, 1899; 6 years. (Filed 3rd May, 1899.)

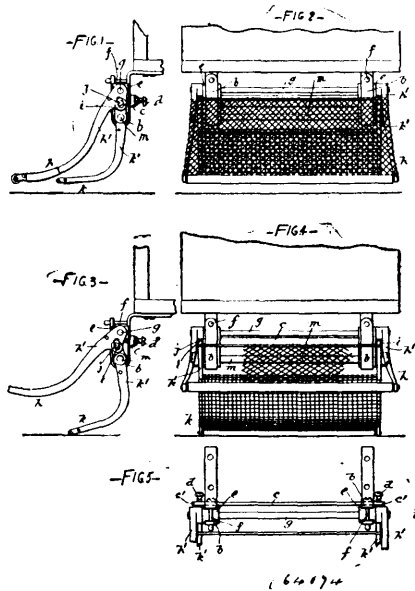
*Claim.*—A nut lock comprising a bolt provided at its threaded portion with a longitudinal groove having an oppositely inclined bottom forming a fulcrum, said bolt being provided at the inner end of its threaded portion with a transverse socket extending inward from the groove and terminating short of the opposite side of the bolt, and a catch consisting of a resilient shank arranged within the groove of the bolt and having its inner portion fitting against the inner side of said fulcrum, its outer portion being adapted to be depressed, the arm 4 located at the inner end of the shank and fitting in the said socket, and a head arranged at the outer end of the shank and having a beveled front edge and provided with a rear inner shoulder, whereby it is adapted to engage an ordinary nut, and is capable of permitting the same to pass over it freely in screwing the nut on the bolt, substantially as described.

**No. 64,074. Car Fender. (Défense de chars.)**

John Currie, Montreal, Quebec, Canada, 29th September, 1899, 6 years. (Filed 10th June, 1899.)

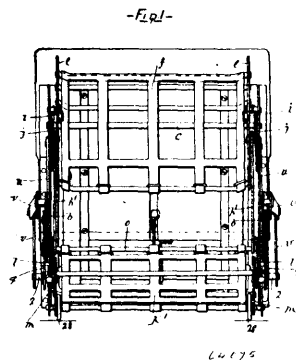
*Claim.*—1st. A car fender comprising a main part and an auxiliary part and an operative connection between said parts whereby the auxiliary part will be lowered into close proximity to the road bed or rails when the main part is raised, for the purpose set forth. 2nd. A car fender comprising a carrying frame, a main fender portion and an auxiliary fender portion the forward ends of said portion being normally located in approximately the same plane, and the upper ends thereof being pivotally connected to said carrier frame, a pair of slotted lugs formed upon the upper end of said main fender portion, and a pair of pin projections upon the part of the auxiliary fender portion above the point of its pivotal connection with the carrier frame, said pins taking through said allotted lugs; substantially as described and for the purpose set forth. 3rd. A car fender comprising a carrying frame, a main fender portion and an auxiliary fender portion the forward ends of said portion being normally located in approximately the same plane, and the upper ends thereof being pivotally connected to said

carrier frame, a pair of slotted lugs formed upon the upper end of said main fender portion, and a pair of pin projections upon the



part of the auxiliary fender portion, above the point of its pivotal connection with the carrier frame, said pins taking through said slotted lugs, and a pair of adjusting screws carried by said carrier frame and bearing upon the rear side of the upper portion of said auxiliary fender, substantially as described and for the purpose set forth. 4th. A car fender comprising a carrying frame, consisting of a pair of forwardly projections U-sections, a pair of grooved blocks taking into said U-sections, means for retaining said blocks against vertical displacement, a main fender portion and an auxiliary fender portion the forward ends of said portion being normally located in approximately the same plane, and the upper ends thereof being connected to said blocks a pair of slotted lugs formed upon the upper end of said main fender portion, and a pair of pin projections upon the parts of the auxiliary fender portion above the point of its pivotal connection with the blocks, said pins taking through said slotted lugs, substantially as described and for the purpose set forth. 5th. A car fender comprising a carrying frame, consisting of a pair of forwardly projections U-sections, a pair of grooved blocks taking into said U-sections, means for retaining said blocks against vertical displacement, a main fender portion and an auxiliary fender portion, the forward ends of said portion being normally located in approximately the same plane, and the upper ends thereof being pivotally connected to said blocks, a pair of slotted lugs formed upon the upper end of said main fender portion, and a pair of pin projections upon the part of the auxiliary fender portion above the point of its pivotal connection with the blocks, said pins taking through said slotted lugs, and a pair of adjusting screws carried by said carrier frame and bearing upon the rear side of the upper portion of said auxiliary fender, substantially as described and for the purpose set forth.

**No. 64,075. Car Fender. (Défense de chars.)**

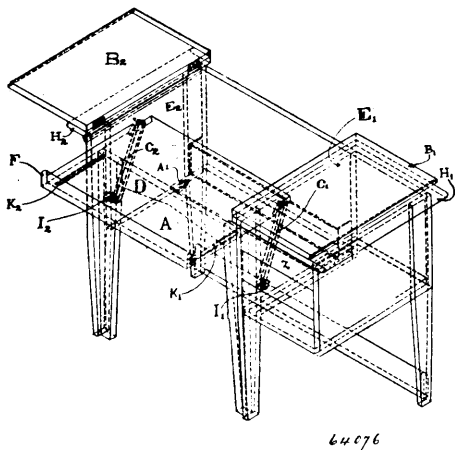


Dominick McAnulty, Montreal, Quebec, Canada, 29th September, 1899; 6 years. (Filed 9th June, 1899.)

*Claim.*—1st. A car fender comprising a horizontal part, an upwardly extending part and means for operatively connecting said parts together whereby the lower end of said upwardly extending

part and the rear end of said horizontal part will be depressed and the forward end of said horizontal part elevated, substantially as and for the purpose set forth. 2nd. A car fender comprising a yielding horizontal part an upwardly extending yielding part and means, for operatively connecting said parts together whereby the lower end of said upwardly extending part and the rear end of said horizontal part will be depressed and the forward end of said horizontal part elevated, substantially as and for the purpose set forth. 3rd. A car fender comprising a horizontal part an upwardly extending part, and means under control of the motorman for operatively connecting said parts together whereby the lower end of said upwardly extending part and the rear end of said horizontal part will be depressed and the forward end of said horizontal part elevated, substantially as and for the purpose set forth. 4th. A car fender comprising an L shaped carrier frame a netted part pivotally connected at one end to the upper end of the vertical portion of said carrier frame and normally extending at an angle thereto, a horizontal portion having lateral projections taking through vertical slots at the rear and forward ends of the horizontal portion of said carrier frame, means for connecting said inclined and horizontal portions together at their upper and rear ends respectively, and means comprising a foot operated lever for tilting said horizontal portion, substantially as described and for the purpose set forth. 5th. A car fender comprising an L shaped carrier frame, a netted part having one end curved and pivotally connected to the upper end of the vertical portion of said carrier frame and normally extending at an angle thereto, a horizontal portion having lateral projections taking through vertical slots at the rear and forward ends of the horizontal portion of said carrier frame, a pair of arms projecting rigidly from the curved portions of the inclined part, a pair of links pivotally connected at its ends to said arms and the rear end of the horizontal part, a pair of compound levers pivotally connected each at one end to the forward end of one side of the horizontal portion of the carrier frame and at their other ends to the projections upon the horizontal part taking through the rear slots in the said horizontal portion, a transverse rod mounted loosely in bearings secured to the underside of the front of the car, a pair of compound levers pivotally connected at one end of each to one of said projections and at their opposite ends to the carrier frame above said projections, a pair of compound levers detachably pivotally connected at their outer ends to the last mentioned pair of compound levers at the point where the arms of each are pivotally connected together, and at their inner ends rigidly to the ends of said transverse rod, and a foot lever rigidly connected to said rod and under control of the motorman, substantially as described and for the purpose set forth.

**No. 64,076. Cabinet for Typewriters.**  
(Cabinet pour clavigraphes.)

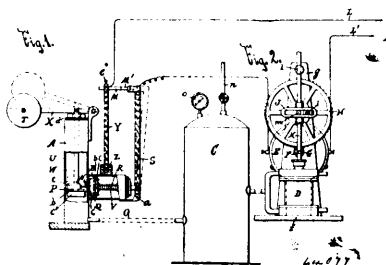


Albert Swindlehurst, Montreal Quebec, Canada, assignee of Louis Henley, Phoenix, New York, U.S.A., and David A Poes, Montreal, Quebec, Canada, 29th September, 1899; 6 years. (Filed 14th April, 1899.)

**Claim.**—1st. The combination of a lever C working on a bearing formed by the boss I held in the side E, said boss while capable of being firmly attached to the levers C<sup>1</sup> being yet removable therefrom, and being free to move up and down vertically with a shelf, held firmly at one edge by the studs forming part of said lever C, said shelf resting also on a fixed support, so that while it may be lifted into a vertical position, or slid into an inclined position, by bringing a stop attached thereto up against a fixed support, it is held firmly in a horizontal position, substantially as described. 2nd. A shelf free to move on the studs of a lever, free to revolve on a fixed fulcrum, this fulcrum being so positioned to a fixed support that said shelf will be held firmly in a horizontal position when drawn up to stop, or in an inclined position when lowered against a suitable fixed shelf. 3rd. The combination with said shelf and said levers of a

frame, having the necessary legs, or other supports, sides adapted to come close up to the sides of such shelf, a cross-bar or support upon which said shelf may rest in a horizontal position, a ledge against which said shelf may rest in an inclined position, a receptacle for stationary or other objects upon such ledges, leaves or wings to cover the aperture in which such shelf works, top ledges to carry such leaves when the shelf is raised and the leaves are open, and by an extension of its frame providing for drawers or similar appliances on its right hand side, the whole so designated that it can be constructed out of lumber of one standard thickness, the whole substantially as described. 4th. A drawer in said frame or cabinet, comprising a series of superposed trays or shallow drawers having an operative connection with each other whereby upon drawing out the lowermost tray those above will be drawn outwards also but in succession and each a shorter distance than such lowermost tray or the next preceding one, substantially as described. 5th. A drawer for a typewriter cabinet having its bottom inclined from all points to one corner as and for the purpose set forth. 6th. A drawer for a typewriter cabinet comprising a series of superposed trays the upper ones of which are moved outward by drawing upon the lowermost and a flap or door hinged to the lower front edge of the lowermost tray and adapted to fall outward below the level of such lowermost tray, when the drawer is in its open position, and to have a vertical position when the drawer is being closed and while it remains so, substantially as described.

**No. 64,077. Switch for Regulating Electric Air Compressors.** (Aiguille pour régler les compresseurs électrique à air.)



Moss Moseley, joint inventor with and assignee of Philip Funck, both of Rochester, New York, U.S.A., 29th September, 1899; 6 years. (Filed 2nd August, 1899.)

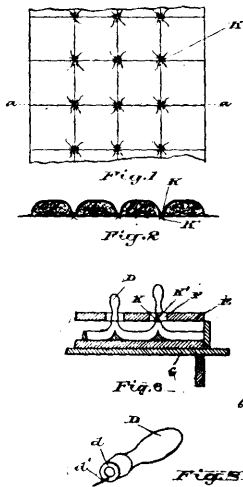
**Claim.**—1st. The combination with an electric motor and compression pump, of the automatic switch for controlling the motor circuit, consisting of two communicating cylinders provided with pistons, suitable insulated contacts, one of which is movable, and operated by the movement of one piston produced by the admission of air to its cylinder by the movement of the other piston, substantially as and for the purpose described. 2nd. The combination with the cylinder A, having piston P, of the cylinder B and its piston Q, the passage N between the cylinders, the contact M and its insulating support Y, the movable contact M<sup>1</sup> and its insulating lever S, substantially as and for the purpose specified. 3rd. The combination with the cylinder A, having piston P, of the cylinder B abutting against the side of cylinder A and provided with piston Q, the passage N between the cylinders, and insulated electric contacts, one of which is movable, and suitable connections whereby the movement of one piston admits air under pressure to the other, and thereby open the electric circuit, substantially as and for the purpose set forth. 4th. The combination with the cylinder A, having piston P, consisting of a washer or suitable elastic material clamped between collars, of the cylinder B provided with a suitable piston, and the passage N between the cylinders, consisting of a row of perforations through the side wall of cylinder A opening into cylinder B, substantially as and for the purpose described. 5th. The combination of the cylinder A, having piston P, the cylinder B arranged at an angle with cylinder A and provided with piston Q, the passage N communicating between the cylinders, weight T and lever X, the contact M and insulating support Y, movable contact M<sup>1</sup>, lever S, rod R and spring V, substantially as and for the purpose specified.

**No. 64,078. Machine for Making Tufted Upholstered Work.** (Machine pour faire des ouvrages en tapisseries.)

William Carrick, John A. McLaughlin and Joseph Fitzgerald, all of Toronto, Ontario, Canada, 29th September, 1899; 6 years. (Filed 9th March, 1899.)

**Claim.**—1st. The improved method of making tufted upholstered work, which consists of taking a piece of pliable material, marking out on it the lines of the tufts, passing through the lines at the intersecting points, buttons having divided shanks, then spreading the material over a form having a plurality of depressed cells with projections at the corners of the cells on which are supported the

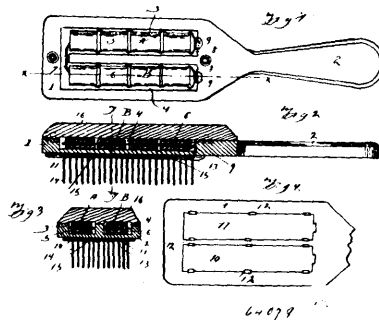
heads of the buttons, holding the buttons and material in position on the cells by hollow guards fitted to receive the shanks of the



buttons and with pegs to enter the holes in the projections, spreading the stuffing material over the back of the pliable material which is pressed into the cells to form the tufts, applying a backing of fabric material over the stuffing material, through which projects the divided shanks of the buttons, and then clinching the divided shanks over the backing material, substantially as specified. 2nd. The improved method of making tufted upholstered work, which consists of spreading a piece of fabric material over a mould having a plurality of depressed cells, passing buttons with divided shanks through the fabric from the face at the corners of the tufts, spreading stuffing material over the fabric and packing it down into the cells to form the tufts, spreading a backing over the filling material through which passes the divided shanks and clinching the divided shanks over the backing material, substantially as specified. 3rd. The improved method of making tufted upholstered work, which consists of spreading a piece of fabric material over a mould having a plurality of depressed cells, passing buttons with divided shanks through the fabric from the face at the corners of the tufts, spreading stuffing material over the fabric and packing it down into the cells to form the tufts, spreading a backing over the filling material through which passes the divided shanks, apply a follower board to the backing material with pressure to pack the filling material and clinching the divided shanks over the backing material, substantially as specified. 4th. A machine for making tufted upholstered work, consisting of a mould having a plurality of depressed cells, projections at the corners of the cells, the tops of which are arranged to receive the heads of the fastening buttons, a hole in each projection, hollow guards to receive the shanks of the fastening buttons, each provided with a peg to enter the hole in its respective projection, a follower board provided with holes, corresponding in number and location with the projections of the mould, substantially as specified. 5th. A machine for making tufted upholstered work, consisting of a mould having a plurality of depressed cells, projections at the corners of the cells, the tops of which are arranged to receive the heads of the fastening buttons, a hole in each projection, hollow guards to receive the shanks of the fastening buttons, each provided with a peg to enter the hole in its respective projection, a follower board provided with holes, corresponding in number and location with the projections of the mould, and a press to force the follower board down on top of the projections, substantially as specified. 6th. A machine for making tufted upholstered work, consisting of a mould having a plurality of depressed cells, projections at the corners of the cells, the tops of which are arranged to receive the heads of the fastening buttons, a hole in each projection, hollow guards to receive the shanks of the fastening buttons, each provided with a peg to enter the hole in its respective projection, a follower board provided with holes, corresponding in number and location with the projections of the mould, and an upturned rim for the mould, substantially as specified. 7th. A machine for making tufted upholstered work, embracing in its construction a mould having a plurality of depressed cells and an upturned rim surrounding the cells, and seats at the corners of the cells to support the head of the fastening button, substantially as specified.

No. 64,079. Electric Hair Brush.

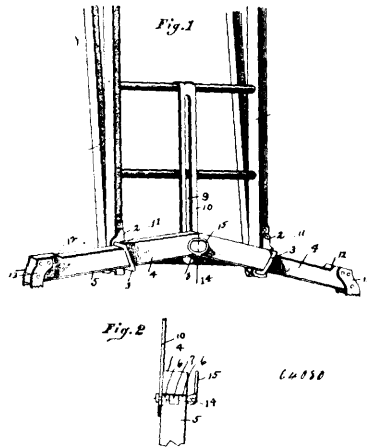
(Brosse électrique pour cheveux.)



Alonzo H. Burchard and John W. Patton, both of Macon City, Missouri, U.S.A., 29th September, 1899; 6 years. (Filed 19th August, 1899.)

Claim.—1st. In an electric brush, the combination with the body and the bristles and non-conducting strip and the battery and connections, of the positive and negative conducting plates interposed between the front of the brush and the non-conducting strip and the clips for holding said plates in place, substantially as described.

No. 64,080. Ladder Base. (Basse d'échelle.)



Frederic Scott Seagrave, Columbus, Ohio, U.S.A., 29th September, 1899; 6 years. (Filed 22nd March, 1899.)

Claim.—1st. In a base attachment for ladders, the combination with a ladder frame, and keepers projecting from the legs thereof, of a base attachment formed of two sections and having a sliding support in said keepers, a central guide carried on said ladder section and means for locking the inner ends of said base sections at different heights on said guide, substantially as specified. 2nd. In a base attachment for ladders, the combination with a ladder section and keepers projecting from the legs thereof, of a base consisting of jointly connected sections 4, said sections passing through said keepers, a guide on said ladder section and means for locking said base sections at different heights on said guide, substantially as specified. 3rd. In a base attachment for ladders, the combination with a ladder section, keepers projecting from the legs thereof and a central guide carried on said ladder, of base sections 4, a bolt hinging the inner ends of said sections and having a sliding engagement with said guide and a hand piece fulcrumed to the outer end of said bolt and having a cam projection, substantially as specified.

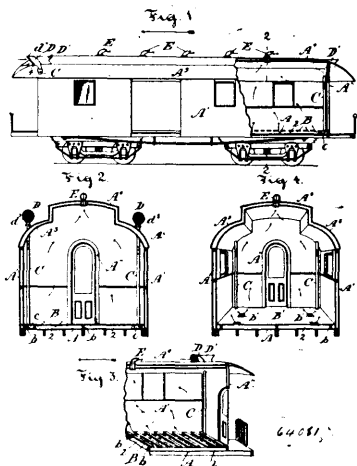
No. 64,081. Car Ventilator. (Ventilateur de chars.)

John Clarke, Orangeville, Ontario, Canada, 30th September, 1899; 6 years. (Filed 6th July, 1899.)

Claim.—1st. In a ventilated car, the combination with the ca floor of longitudinal bearers placed upon said floor, a false floor supported on said bearers and having openings therein, end forming air passages between it and the ordinary floor, a series of air supply pipes having their lower or discharge ends extending into and communicating with said air passages and their upper ends projecting above the car roof, dampers or regulators within said pipes, revolvable blowers or



cowls journaled within the upper ends of said pipes, said cowls provided with projecting screened mouths and oppositely projecting



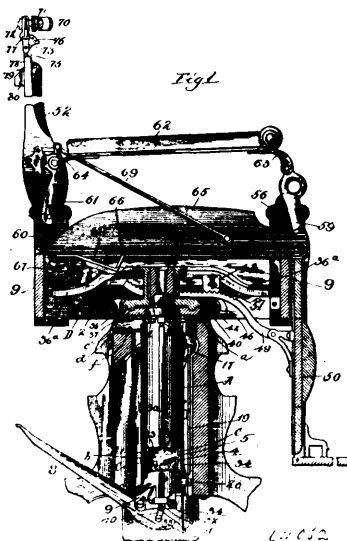
vanes, said pipes and cowls forming injectors, and a series of revolvable ejector cowls with projecting mouths, short trunks or tubes secured in the highest part of the car roof in which said ejector cowls are journaled and valves or regulators within said short tubes, substantially as set forth. 2nd. In a ventilated car, the combination with the car floor of longitudinal bearers placed upon said floor, an open slatted false floor supported on said bearers and forming air passages between it and the floor below, air supply pipes having their lower ends extending into and communicating with said air passages and their upper ends extending through the car roof, a damper or regulator in each pipe, a revolvable blower or cowl forming an extension of the upper end of each air pipe, such cowl having a flaring undercut double screened mouth facing the direction of the movement of the car and provided at the opposite side with a vane extending in the opposite direction in a vertical plane, each pipe and cowl forming an injector, a series of numerous smaller revolvable ejector cowls projecting above the roof, a short trunk or tube for each ejector cowl secured in the highest part of the car roof and in which said ejector cowl is journaled and a valve or regulator in each trunk or tube, substantially as set forth. 3rd. In a blower or cowl for car-ventilation, the combination of a cylindrical neck with a curved throat and flaring mouth beveled off from the top downwards and inwards towards the neck, a wire screen covering said mouth, an extension rim of said mouth cut away below to form an outlet for solid particles, a wire mesh covering the edge of said rim, a vane secured opposite said mouth in a vertical plane passing through the centre line of said mouth, and means of allowing said cowl to rotate on a vertical centre, substantially as set forth. 4th. In a car ventilator, the combination with the upper end of a vertical pipe of spiders placed within and holding bearings for a spindle, the cylindrical neck of a cowl extending within said pipe, a spider at the lower end of said neck, a spindle held by said spider and having its upper end secured at the top of said cowl and having its lower part journaled in the bearings within the pipe, a flange at the upper end of the neck projecting over the upper edge of the said pipe, a curved throat extending from the upper part of said neck enlarging and terminating in a flaring mouth, the lips of said mouth beveled to slope downwards and inwards and a vane on the opposite side in a vertical plane passing through the centre line of said neck and mouth, substantially as set forth. 5th. In a car ventilator, the combination with the car roof of a series of vertical trunks or short tubes secured therein, spiders secured in the lower parts of each holding bearings, a cowl having a cylindrical neck extending within said trunk and extending from said neck by a curved throat to a beveled mouth, a flange at the upper part of the neck projecting over the upper edge of the trunk, a spider in the lower part of the neck, a spindle secured within said spider and at the top of the cowl and journaled in the bearings within the trunk and a valve in the lower part of said trunk, substantially as set forth.

**No. 64,082. Chair for Barbers' or Dentists' Use.**  
(Fauteuil de barbiers ou dentistes.)

Hugo R. Kuersten, Chicago, Illinois, U.S.A., 30th September 1899; 6 years. (Filed 19th June, 1899.)

*Claim.*—1st. In a barbers' chair, the combination with fluid pressure devices for raising and lowering the chair, comprising a reciprocating cylinder dividing into two chambers by means of a piston and forming respectively a pressure chamber, and a fluid supply and receiving chamber communicating with each other through an opening controlled by a check valve, of a valve controlling the flow of fluid from said pressure chamber to said supply and receiving chamber, devices for reciprocating said cylinder, and devices connected with said valve and adapted to be engaged by

said reciprocating devices to operate said valve, substantially as described. 2nd. In a barbers' chair, the combination with a base, a

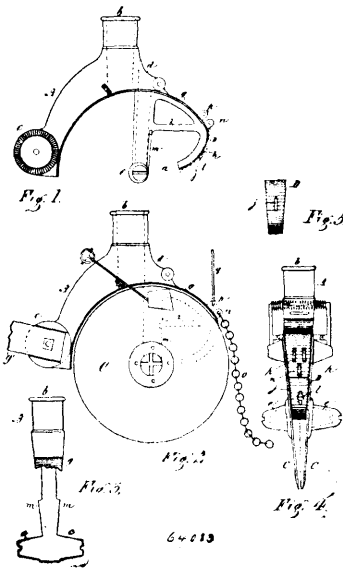


cylinder movable in said base and carrying the chair body, a reciprocating cylinder telescopically movable in said first-named cylinder, a piston carried by said first-named cylinder and movable in said reciprocating cylinder and dividing the latter into the chambers forming respectively a pressure chamber and a fluid supply and receiving chamber, a check valve in said piston, an opening in said piston, a valve controlling said opening and having a valve stem, a spring bearing on said valve to hold same normally closed, a bell crank lever pivotally mounted in said first-named cylinder and having one of the arms connected with said valve stem, a rod pivotally mounted on said first-named cylinder and carrying an arm adapted to engage the free arm of said bell crank lever, devices for operating said reciprocating cylinder and carrying devices adapted to engage devices on said rod for turning the latter to open said valve, substantially as described. 3rd. In a barbers' chair, the combination with fluid pressure devices for raising the chair, including two interfitting reciprocating members and devices for imparting motion to one of said members to bring fluid pressure to bear on the other thereof to move the same, of a valve interposed in one of said members to release the fluid pressure, and connection between said valve and said devices for imparting motion to one of said members, to operate said valve, substantially as described. 4th. In a barbers' chair, the combination with fluid pressure devices for raising the chair including two interfitting reciprocating members and devices for imparting motion to one of said members to bring fluid pressure to bear on the other thereof to move the same, of a valve interposed in one of said members to release the fluid pressure, and connection between said valve and said devices for imparting motion to one of said members, to operate said valve, comprising a connection between said valve and a lever pivotally mounted on one of said reciprocating members, a revolvable member carried by said last-named reciprocating member and adapted to engage said lever to turn the same to operate said valve, and devices on said revolvable member adapted to be engaged by devices on said devices for reciprocating one of same members, to turn said revolvable member, substantially as described. 5th. In a barbers' chair, the combination with a base and a chair body, of fluid pressure devices interposed in said base and carrying said chair body, means for operating said fluid pressure devices for raising said chair body, devices for holding same in its raised position and devices for releasing same including a valve interposed in said fluid pressure devices, and devices connected with said valve and adapted to be engaged by said means for operating said fluid pressure devices, for operating said valve, substantially as described. 6th. In a barbers' chair, the combination with a base and a chair body, of fluid pressure devices carried by said base and carrying said chair body and comprising two members, devices for reciprocating one of said members to raise the other thereof, devices for engaging the member to be raised to hold same in its successive raised positions, and devices for releasing said member to be raised to lower said chair body including a spring actuated valve interposed by one of said fluid pressure members and held normally closed, connection between said valve and a pivoted member carried by said member carrying said valve, a rod comprising two telescopic members, one of which is carried by said member carrying said valve and the other carried by said other member, pivotally mounted on said members and carrying an arm at each end, one of said arms being adapted to move in the path of and engage said pivoted member to turn same to open said valve and the other arm being adapted to project into the path of and be engaged by said devices for reciprocating of one of said fluid pressure members to turn said rod

substantially as described. 7th. In a barbers' chair, a chair body provided with reclining mechanism, said mechanism including a rack on one of the reclining members, a pin on a rigid portion of the chair normally held at the lower limit of its movement by a spring and adapted to be yieldingly engaged by said rack, and devices for throwing said rack into and out of engagement with said pin, substantially as described. 8th. In a barbers' chair, the combination with the base, a chair body mounted upon devices moveable in said base, and a lever adapted to operate said moveable devices to raise said chair, of a device for determining the upper limit of movement of said chair body comprising a member movably connected with said moveable devices and adapted to engage the same and said lever when said moveable devices approach the upper limit of their movement, to hold said lever against movement in one direction, devices on said base adapted to engage said moveable devices for holding said chair in its raised position, and means for releasing said moveable devices to permit said chair to descend, substantially as described. 9th. In a barbers' chair, a base, a chair mounted on a member movable in said base, a plunger carried by said member, a reciprocating cylinder adapted to receive said plunger, devices for reciprocating said cylinder to compress fluid underneath said plunger to raise the same, devices for holding said plunger in its raised position, and valve controlled connection between the chambers of said cylinder above and below said plunger for causing fluid to pass from the upper to the lower chamber of said cylinder at intervals corresponding with the downward movements of said cylinder, substantially as described. 10th. In a barbers' chair, a base, a chair mounted on a member movable in said base, a plunger carried by said member, a reciprocating cylinder adapted to receive said plunger, devices for reciprocating said cylinder to compress fluid underneath said plunger to raise the same, devices for holding said plunger in its raised position, valve controlled connection between the chambers of said cylinder above and below said plunger for causing fluid to pass from the upper to the lower chamber of said cylinder at intervals corresponding with the downward movements of said cylinder, and means for releasing said plunger and permitting the fluid to slowly pass from the lower to the upper chamber of said cylinder, whereby said plunger gradually descends, substantially as described.

**No. 64,083. Seed Drill Disc Shoe.**

(Sabot pour semoirs en ligne.)

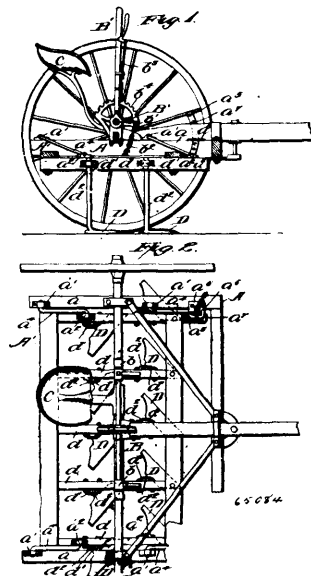


William Stephenson Morris, Manitoba, Canada, 30th September, 1899; 6 years. (Filed 17th June, 1899.)

*Claim.*—1st. In combination with the standard of a disc seeder, having an axle on each side thereof, revolving discs mounted upon the axles, a curved arm to act as an inner scraper formed on the rear of the same, with an opening between its lowest end and the standard to allow earth to drop out of the said opening that may get in between the discs, substantially as and for the purpose specified. 2nd. In combination with the curved arm, of a disc seeder standard, an adjustable inner or central curved scraper made to conform to the said arm and secured thereto, terminating at the end of the same, leaving an opening between it and the standard, all constructed substantially as and for the purpose specified. 3rd. In a seed drill the combination of a grain spout having an axle on each side thereof, revolving diverging discs mounted thereon, and two chill hardened projections cast on the sides of the lower end of the standard of the grain spout, to correspond to the divergence of the discs, which are made to impinge against the said projections and so keep the discs clean at their inner centre, substantially as

specified. 4th. In combination with a casting for seed drills having an axle on each side, revolving discs mounted on the axles on the rear of the grain spout, of a projecting eye attached to the said arm for securing a drag chain thereto, and two lugs also attached to the said curved frame to which to secure a spring and press rod for elevating and depressing the discs in operation, substantially as and for the purpose specified.

**No. 64,084. Weed Cutter. (Sarclueur.)**



Joseph Wylie, Tregarva, Northwest Territory, Canada, 30th September, 1899; 6 years. (Filed 16th June, 1899.)

*Claim.*—1st. A weed cutter, comprising a frame, a series of cutters mounted therein and arranged in rows, the blades of the cutters of one row extending in the opposite direction from the cutters of the rest row, subscription as described. 2nd. A weed cutter, comprising a frame, a series of cutters mounted therein and arranged in rows, the blades of said cutters extending diagonally in opposite directions, each cutter being separate from and independent of the other cutters, subscription as described. 3rd. In a weed cutter, the combination with the running gear, of a vertically adjustable frame pivoted therein, means substantially as described for adjusting said frame and a series of cutters mounted in said frame, substantially as described. 4th. In a weed cutter the combination with the running gear, of a vertically adjustable frame pivoted to the frame of the running gear and so arranged as to maintain the said frame in a horizontal place, and a series of cutters mounted in said frame, substantially as described. 5th. In a weed cutter, the combination with the running gear, of a vertically adjustable frame, rods pivoted to the front and rear of said running gear, whereby said frame is maintained in a horizontal place, an operating lever for raising and lowering said frame, and a series of cutters mounted in said frame, substantially as described.

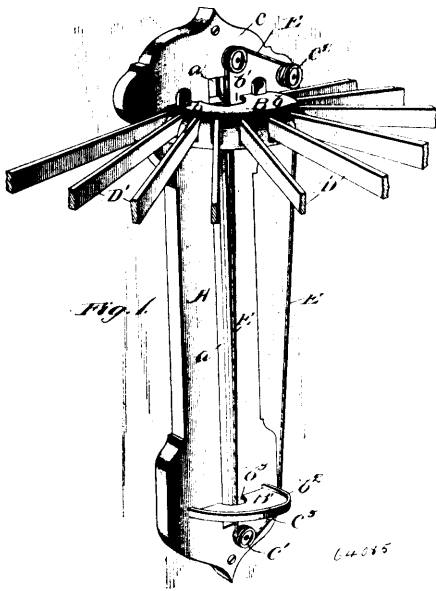
**No. 64,085. Folding Clothes Drier.**

(Séchoir pliant à linge.)

Arthur Chalifour, Ste. Cunegonde, Quebec, Canada, 30th September, 1899; 6 years. (Filed 16th June, 1899.)

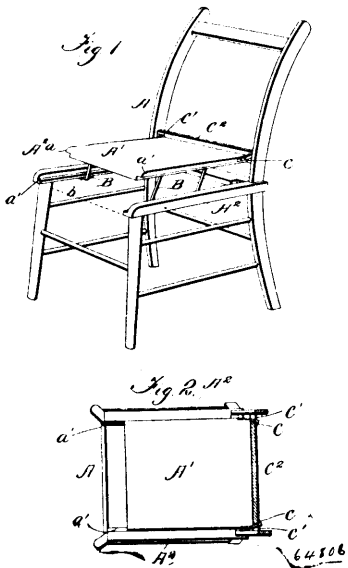
*Claim.*—1st. A folding clothes drier, comprising a frame, a guide plate secured thereto having a plurality of radial slots, a movable plate mounted on said frame, a plurality of slats pivoted to said movable plate and adapted to pass through said radial slots and an operating cord secured to said movable plate whereby the said slats may be raised up into their operative position or folded down upon the frame, substantially as described. 2nd. A folding clothes drier, comprising a frame, a supporting plate secured to the lower portion thereof, a guide plate secured to the upper portion of said frame and having a plurality of radial slots, a movable plate mounted on said frame, a plurality of slats pivoted to said movable plate and adapted to pass through said radial slots, and an operating cord secured to said movable plate whereby the said slats may be raised up into their operative position or folded down upon the frame, substantially as described. 3rd. A folding clothes drier, comprising a frame having a longitudinal guide slot formed therein, a supporting plate secured to the lower portion of said frame, a guide plate secured to the upper portion of said frame and having a plurality of radial slots, a movable plate having a guide lug adapted to engage said guide

slot, a plurality of slats pivotally secured to said movable plate and adapted to pass through said radial slots, a series of pulleys secured



to the upper and lower portion of said frame, and an operating cord attached to said movable plate and adapted to pass over said pulleys whereby the said slats may be raised up into their operative position or folded down upon the frame, substantially as described.

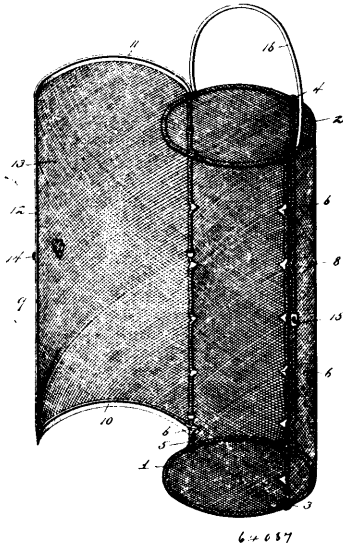
**No. 64,086. Chair. (Fauteuil.)**



George Arbuthnot Smith, Alberni, British Columbia, Canada, 30th September, 1899; 6 years. (Filed 16th June, 1899.)

*Claim.*—1st. A combination chair, comprising a chair frame, a vertically adjustable seat portion connected therewith and means for retaining the said seat portion in its raised position, substantially as described. 2nd. A combination chair, comprising a chair frame, a vertically adjustable seat portion, a series of rods pivotally connected with said frame and said seat portion and means carried by said seat portion and adapted to engage with the chair back for retaining the said seat portion in its raised position, substantially as described. 3rd. A combination chair, comprising a chair frame, a vertically adjustable seat portion, the sides of said seat portion being recessed forming flanges, corresponding flanges on said frame matching with the flanges of said seat portion, a series of parallel rods pivotally connecting the seat portion with the said frame, and a spring catch carried by said seat portion, and adapted to engage with the chair back, whereby the said seat portion is retained in its raised position, substantially as described.

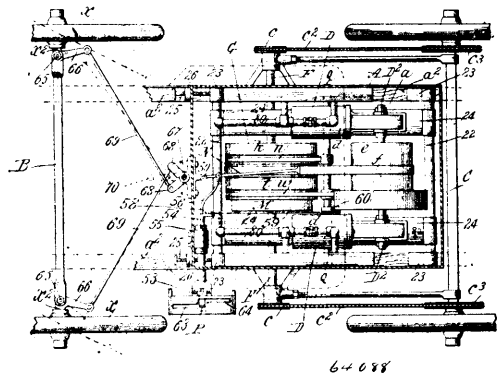
**No. 64,087. Pie Rack. (Etagère à pâtés.)**



Edora Vilott Anderson, Van, Oregon, U.S.A., 30th September, 1899; 6 years. (Filed 16th June, 1899.)

*Claim.*—A pie rack consisting of a wire frame made up of an upper and a lower ring, longitudinally extending wires connecting said rings provided with eyes at their opposite ends which embrace said rings and bent at points intermediate of their ends forming inwardly extending off-sets, two of said longitudinally extending wires located at diametrically opposite points with respect to said rings, and the other located at an intermediate point, wire netting covering said rings and connecting the oppositely located, longitudinally extending wires and the intermediate wire, leaving an uncovered space upon one side of said frame, and a door adapted to enclose said uncovered space consisting of a wire covered frame made up of parallel, substantially semi-circular strips located at the upper and lower ends thereof pivoted to one of the oppositely located, longitudinally extending wires of the frame and a vertically extending strip connecting the free ends of said semi-circular strips, as and for the purpose set forth.

**No. 64,088. Motor Vehicle. (Automobile.)**



Hinsdale Smith, Springfield, Massachusetts, U.S.A., 30th September, 1899; 6 years. (Filed 13th April, 1899.)

*Claim.*—1st. The combination with an axially or centrally arranged rotatable part having a fixed gear wheel *m*, of a second rotatable part *q*, also having a fixed gear wheel *r*, a disc or gear carrier *L*, mounted to be rotated having united gears *o*, *p* thereon, the one *p* adapted to be driven by the gear on said part *q*, and through its therewith connected gear, driving the gear *m* on the first-named rotatable part, shiftable means for driving either of said rotatable parts, and means for permitting or restraining the turning of the gear carrying disc *q*, substantially as described. 2nd. The combination with an axially or centrally arranged rotatable part *q*, also having a fixed gear wheel *r*, a disc or gear carrier *L*, mounted to be rotated between said two rotatable parts having a depression 38 in its rim, and carrying united gears *o* and *p*, the one *p* adapted to be driven by the gear wheel *r* on said rotatable part *q*, and through its therewith connected gear *o* driving said gear wheel *m* on the first rotatable part, a shiftable belt for driving either of said rotatable parts, and a strap encircling said disc and located within the depression there-

of, and having means operative to render it loose or constricted about said disc for permitting or restraining the turning of the disc, substantially as and for the purpose described. 3rd. The combination with an axially or centrally arranged rotatable part having a comparatively large fixed gear wheel *m*, of a second rotatable part *q*, having a smaller gear wheel or pinion *r*, a disc or gear carrier *L*, with the united gear wheels *o* and *p* rotatably mounted thereon, the one *p* adapted to be driven by the said pinion, and through its therewith connected gear *o*, driving the larger gear *m* on the first-named rotatable part, shiftable means for driving either of said rotatable parts, and *m* means for permitting or restraining the turning of the gear carrying disc, substantially as and for the purpose set forth. 4th. The combination with an axially or centrally arranged rotatable part having a fixed gear wheel *m*, of a second rotatable part *q*, also having a fixed gear wheel *r*, a disc or gear carrier *L*, mounted to be rotated, having united gears *o* and *p* thereon, the one adapted to be driven by the gear *r* on said second rotatable part, and through its therewith connected gear *o* driving the gear *m* on the first-named rotatable part, shiftable means as a shiftable belt for driving either of said rotatable parts *J* or *q*, means for permitting or restraining the turning of the gear carrying disc, a single movable hand operated part, connections between same and said shiftable driving means, and connections between same and said disc restraining means whereby at pleasure, through said single hand operated part, the driving means may be caused to cooperate with either of said two rotatable parts, and the said restraining means either engaged with or free from the said gear carrying disc *L*, substantially as and for the purposes set forth. 5th. The combination with an axially arranged rotatable part having a fixed gear wheel *m*, and also having a fixed internal gear wheel *M*, of a second rotatable part *q*, also having a fixed gear wheel *r*, a third rotatable part *t*, having a fixed gear *u*<sup>2</sup>, a gear carrying disc *L*, adapted to be rotated having two united gears *o* and *p* thereon, the one adapted to be driven by gear *r*, and through its therewith connected gear driving the gear on the rotatable part *J*, a second gear carrying disc *u* also rotatably mounted carrying one or more gears *v* meshing as intermediates with both the gear *u*<sup>2</sup> and with the internal gear of the rotatable part, shiftable means for rotatably driving either of said three rotatable parts, and means for restraining or rendering free either of said disc carrier *L* or *u*, substantially as and for the purposes as set forth. 6th. The combination with an axially or centrally arranged rotatable part *J* having a fixed gear wheel *m*, and a circumferentially extended portion to constitute a pulley *k*, of a second rotatable part *q*, also comprising a pulley and a centrally arranged fixed gear wheel *r*, a disc or gear carrier *L*, mounted to be rotated between said two pulleys having united gears *o* and *p* thereon, the one *p* adapted to be driven by the gear on said pulley *q*, and through its therewith connected gear *o* driving the gear *m* on the said rotatable part *J*, a strap *n* encircling the gear carrying disc, a rock shaft having portions extended in different directions with which the ends of the strap are connected, a belt *f* shiftable from one of said pulleys to the other, a belt shifter therefor, and a lever having operating engagements with both the belt shifter and strap, substantially as and for the purposes set forth. 7th. The combination with an axially or centrally arranged rotatable part *J*, having fixed thereon, an internal gear *H*, of a pulley *t*, rotatable about said central part *J* provided with pinion *u*<sup>2</sup> centrally thereof, a rotary gear carrier *u* provided with one or more gear wheels *v* meshing as intermediates between the said pulley pinion and the teeth of said internal gear, and means for temporarily restraining the gear carrier against rotation whereby the rotations of the pulley *t* will then ensure the reverse rotation of the said first named rotatable part *J*, substantially as described. 8th. The combination with a centrally arranged rotatable part *J*, provided with a pulley or like rotating device *k*, and provided with an internal gear *M* fixed thereon, of a second pulley *t* provided with a centrally arranged pinion *u*<sup>2</sup>, a gear support *u* provided with one or more gear wheels *v* meshing as intermediates between said pinion *u*<sup>2</sup> and internal gear wheel *M*, means for permitting or restraining the rotation of said support *u* for the intermediate gear wheels, and a shiftable belt and shifting means whereby it may be in driving contact around either of said pulleys *k* or *t*, substantially as and for the purposes described. 9th. The combination with a centrally arranged rotatable part provided with a spur gear *m* and an internal gear *M*, of a wheel or pulley *q* to be driven, provided centrally with a gear wheel or pinion *r*, a gear support rotatably mounted and having the united gears *p* and *o* in mesh with said pinion and spur gear *r*, a second wheel or pulley *t* to be driven provided with a gear wheel, a second gear support provided with one or more gear wheels *v* in mesh with both the gear wheels on pulley *t* and said internal gear *M*, and means for restraining either one of said gear supports from being rotated at any given time, as desired, and a shiftable driver for rotating either of said wheels or pulleys *q* or *t*, substantially as and for the purposes set forth. 10th. The combination with a centrally arranged rotatable part provided with a spur gear *m* and an internal gear *M*, of a wheel or pulley *q* to be driven, provided centrally with a gear wheel or pinion *r*, gear support rotatably mounted and having the united gears *p* and *o* in mesh with said pinion and spur gear *r*, a second wheel or pulley *t* to be driven provided with a gear wheel, one or more gear wheels *v* in mesh with both the gear wheels on pulley *t* and said internal gear *M*, a shiftable belt or driver for driving either of said pulleys according to its position, straps encircling and adapted to be constricted around said gear supports, means for shifting said belt, and a rock shaft having vari-

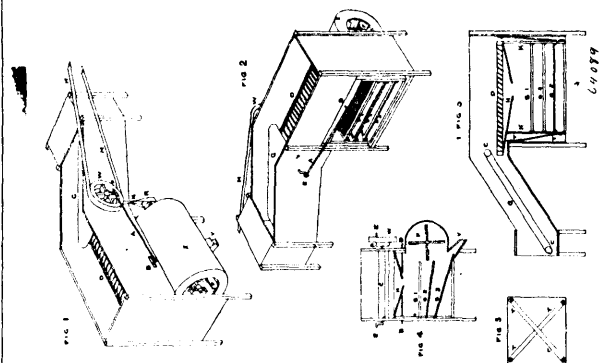
ously radially extended engagement portion in connection with the ends of said straps, and means for imparting a rocking motion whereby simultaneously, one of said straps will be in binding engagement on one of the gear supports, the other being rendered loose, and vice versa, substantially as and for the purposes set forth. 11th. The combination with a centrally arranged rotatable part provided with a spur gear *m* and an internal gear *M*, of a wheel or pulley *q* to be driven, provided centrally with a gear wheel or pinion *r*, a gear support rotatably mounted and having the united gears *p* and *o* in mesh with said pinion and spur gear *r*, a second wheel or pulley *t* to be driven provided with a gear wheel, one or more gear wheels *v* in mesh with both the gear wheel on pulley *t* and said internal gear, a shiftable belt or driver for driving either of said pulleys according to its position, straps encircling and adapted to be constricted around said gear supports, and a rock shaft having variously radially extended engagement connections with the ends of said straps, and means operative both of shifting said belt and for conjointly imparting a rocking motion whereby one of said straps will be in binding engagement on one of the gear supports, the other being rendered loose, and vice versa, substantially as and for the purposes set forth. 12th. In combination, an axially arranged rotatable part having a fixed gear wheel, and an enlarged pulley, and also having a fixed internal gear wheel, of a second rotatable part or pulley also having, centrally, a fixed gear wheel, a third rotatable part or pulley, of circumferentially the same size as the aforementioned pulleys having a fixed gear, a gear carrying disc adapted to be rotated having two united gears thereon, the one adapted to be driven by the gear on said second rotatable part and through its therewith connected gear driving the gear on the first rotatable part, a second gear carrying disc also rotatably mounted carrying gears meshing, as intermediates, with both the gear on the said third rotatable part and with the internal gear of the first rotatable part, said gear carrying discs being circumferentially similar to said pulleys and have depressions in their rims, the straps *v* and *w* encircling them, the rock shaft having the differentially radial strap engagement extensions, a belt shifter, and means for shifting it, which is also connected for rocking said rock shaft whereby the one strap may be tightened and the other simultaneously loosened and vice versa, substantially as described. 13th. In a motor vehicle, the combination with a traction wheel or wheels thereof, of a motor adjustable mounted on the vehicle for a bodily movement and provided with a pulley, of a vehicle driving shaft having driving connections with the vehicle wheels, and provided with changeable speed gearing comprising a plurality of equal sized pulley-like members adapted to have, both directly and through reducing and reversing gearing, connections with the vehicle driving shaft, a belt running around the motor pulley, and also according to its shifted position around one or the other of the pulley members of the aforesaid changeable gearing, a belt shifter for said belt, and means for bodily moving the motor and its pulley independently of the vehicle driving shaft, towards or from the latter, substantially as and for the purposes set forth. 14th. In a motor vehicle, the combination with a vehicle driving shaft consisting of two shaft members having driving connections with separate traction wheels of the vehicle, and having on their adjoining ends fixed bevel gears, of a sleeve-like part loosely surrounding the sectional vehicle driving shaft and comprising a spur gear *m*, a pulley or driver as *k*, having the journal shaft *i* with the bevel gear wheels mounted thereon which are in mesh with the bevel gear wheels of both the said shaft sections, a second rotatable drive wheel or pulley *q* having a hub-provided pinion or gear wheel *r*, the gear carrying support *L*, having the united gears *p* and *o* respectively in mesh with the pinion *r* and sleeve gear *m*, means for permitting or restraining from rotation the said gear carrying support, and driving means shiftable to operate at pleasure either wheel *k* or wheel *q*, substantially as and for the purposes set forth. 15th. In a motor vehicle, in combination, a vehicle driving shaft consisting of two shaft members having driving connections with separate traction wheels of the vehicle, and having on their adjoining ends, fixed bevel gears, a sectional and united sleeve-like part loosely surrounding the sectional vehicle driving shaft, and comprising a spur gear *m*, a pulley or driver as *k*, having the journal shaft *i* with the bevel gear wheels mounted thereon which are in mesh with the bevel gear wheels of both the said shaft sections and said sectional sleeve comprising cupped members forming a casing for said several intermeshing bevel gears, a second rotatable drive wheel or pulley *r* having a hub-provided pinion or gear wheel *r*, the gear carrying support *L*, having the united gears *p* and *o* respectively in mesh with the pinion *r* and sleeve gear *m*, means for permitting or restraining from rotation the said gear carrying support, and driving means shiftable to operate at pleasure either wheel *k* or wheel *q*, substantially as and for the purposes set forth. 16th. In a motor vehicle, in combination, the sectional vehicle driving shaft having, on the adjacent ends of its sections, the bevel gear wheels 29, 30, the sleeve-like part rotatably surrounding the sectional shaft carrying the journal shaft *i* provided with the bevel gear wheels 33, 33, in mesh with said first named bevel gear wheel, and provided with the spur gear *m*, the pulley *q* provided with a hublike pinion *r*, the rotatable gear carrying disc *L*, surrounding the sleeve, and provided with the gear wheels *p* and *o* which mesh into gears *r*, *m*, means for restraining said gear carrier at pleasure against rotation and means for rotating pulley *q*, substantially as and for the purposes set forth. 17th. In a motor vehicle, in combination, the sectional vehicle driving shaft having on the adjacent ends of its sections, the bevel

gear wheels 29, 30 the sleeve-like part rotatably surrounding the sectional shaft, carrying transversely within the chambered portion thereof, the journal shaft *l* provided with the bevel gear wheels 33, 33, meshing into the bevel wheels 29, 30, and provided with the fixed internal gear M, the pulley or drive wheel *t* rotatable around, and independently of the sleeve, and provided at its hub with a pinion, the rotatable gear support *n* provided with one or more spur gear wheels *r* meshing as intermediates with both said pulley pinions and said internal gear of the sleeve, and restraining mechanism for said gear support, substantially as and for the purposes set forth. 18th. In a motor vehicle, in combination, the sectional vehicle driving shaft having on the adjacent ends of its sections, the bevel gear wheels 29, 30, the sleeve-like part rotatably surrounding the sectional shaft, having *j* journalled therewithin and bodily movable therewith, the bevel gear wheels 33, 33, in mesh with said gears 29, 30, and also provided with the spur gear *m*, and the pulley extension *k*, the pulley *q*, rotatable about the sleeve and having the hublike pinion *r*, the rotatable gear carrying disc *L*, loosely surrounding the sleeve, and provided with the gear wheels *p* and *o* which mesh into gears *r* *m*, means for restraining said gear carrier at pleasure against rotation and shiftable means for rotating either pulley *q* or the sleeve through its part *k*, substantially as and for the purposes set forth. 19th. In a motor vehicle, in combination, the sectional vehicle driving shaft having on the adjacent ends of its sections, the bevel gear wheels 29, 30, the sleeve-like part rotatably surrounding the sectional shaft, carrying axially transversely within the chambered portion thereof, which surrounds the ends of the shaft sections, the suitably journalled bevel gear wheels 33, 33, meshing into the bevel wheels 29, 30, and provided with the fixed internal gear M at its opposite end, the pulley or drive wheel *t* rotatable around, and independently of the sleeve, and having an elongated hub provided at its end with a pinion, the rotatable gear supporting disc *n* mounted on the extended hub of the said wheel *t* between the body of said wheel and said internal gear, and provided with one or more spur gear wheels *r* meshing as intermediates with both said pulley pinions and said internal gear of the sleeve, and the strap for said disc, and operating means therefor, substantially as and for the purposes set forth. 20th. In a motor vehicle, in combination, the vehicle driving shaft *F*, constituted by the sections 27, 28, having on their adjacent ends the bevel gear wheels 29, 30, the two part sleeve formed with the cuplike end portions *J*<sup>2</sup> *J*<sup>3</sup>, fixed together constituting an internal chamber having journalled therein and bodily revoluble, the bevel gear wheels 33, 33, meshing said gears 29, 30, and one of said sleeve sections provided with spur gear *m* and also being outwardly enlarged to constitute the drive wheel or pulley *k*, said sleeve moreover, being provided suitably distant from said pulley with the fixed internal gear, the pulley *q* rotatable about the sleeve and provided with the hub-like pinion *r*, a third pulley *q* alongside pulley *q* having the elongated hub provided at its end with the pinion gear *n*<sup>2</sup>, the disc *L* rotatable about the sleeve between the pulleys *q* and *k* carrying one or more sets of united gear wheels *p* and *c* meshing said pulley pinion *r* and the gear wheel *m* of the sleeve, the second disc *n* rotatably mounted upon the elongated hub of the pulley *t* having one or more wheels in mesh with, and intermediate between the pinion *n*<sup>2</sup> and the internal gear of the sleeve, the straps *u* and *w* adapted for binding engagements respectively around discs *L* and *n*, means for rendering them tight or loose as desired, a driving belt shiftable unto either of the said three pulleys and driving connections between said shaft *F* and traction wheels of the vehicle, substantially as described and shown, and for the purposes set forth. 21st. In a motor vehicle, a speed governing mechanism, having a shiftable belt, and having a strap encircling a cylindrical part which is comprised in said mechanism, a belt shifter, a strap tightener, and a lever having connections with the belt shifter, whereby, when swung in one plane of movement, it operates the belt shifter and also has connections with the strap tightener, and whereby, when swung in another plane, it operates the said tightener without effect on the belt shifter, substantially as described. 22nd. The combination with the belt *f* and a strap, of the belt shifter *N* pivotally mounted, and a rock shaft having differently extended radial members with which are connected the ends of the straps, and having the arm 60, the rock shaft 54 provided with an angular member having the lever *P* intermediately pivoted thereon and having a lever arm 58, the connecting rod 59 joining arms 58 and 60, and the connecting rod 56 joining the lever *P* with the belt shifter, substantially as and for the purposes set forth. 23rd. In a motor vehicle, the combination with a speed controlling mechanism, comprising several rotatable pulleys and cylindrical members having respectively encircling shafts, a rock shaft *Q* having variously and oppositely arranged extension members, with which the ends of the said straps are connected, a belt adapted to run around the said pulleys and to be shifted from one to the other thereof, a belt shifter engaging the belt, a rock shaft 54 having a controlling lever pivotally mounted thereon, so as to swing in one plane independently of the rock shaft, and so that when swung in another plane, it will rock said shaft, connections between this lever operated rock shaft and the first named rock shaft, and connections between the lever and the belt shifter, substantially as described and for the purpose set forth. 24th. In a change speed mechanism, the combination with the shiftable belt *f* and the disc retaining strap, of the belt shifter *N* pivotally mounted, and a rock shaft *Q* having differently extended radial members with which are connected the ends of the strap, and having the arm 60, the tubular rock shaft

54 provided with an angular member having the lever *P* intermediately pivoted thereon and having a lever arm 58, the connecting rod 59 joining rock shaft arms 58 and 60, and the connecting rod 56 joined to a member of the lever *P*, extending therefrom through the said tubular rock shaft to connection with the belt shifter, substantially as and for the purposes set forth. 25th. A two speed forward driving and a reversing mechanism, comprising a shiftable driving belt and two cylindrical members and restraining straps therefor, substantially as described, of a lever mounted to swing fore and aft to operate the straps and to swing transversely to effect the shifting of the belt from one to another of its several positions, and the plate having a slot or opening therein comprising a central transverse portion 62, a forwardly extending portion 63 having its position between the ends of the transverse portion and the rearward extension 64 having its arrangement in line with one end of said slot portion 62, constituting an indicator or gauge for the positions of the said controlling lever, substantially as described. 26th. In a motor vehicle, the combination with a speed controlling and reversing mechanism, comprising the rotatable pulleys *k*, *q*, *t*, and the discs *L*, *n* having respectively the encircling straps *n*, *u*, of a rock shaft *Q* having variously and oppositely arranged radial extension members, with which the ends of the said strap are connected, a belt *f* adapted to run around the said pulleys and to be shifted from one to the other thereof, a belt shifter *N* engaging the belt, a rock shaft 54 having a controlling lever *P* pivotally mounted thereon, so as to swing in one plane independently of the rock shaft, and so that when swung in another plane, it will rock said shaft, connections between this lever-operated rock shaft and the rock shaft *A*, connections between the lever and the belt shifter, and the gauge and guard plate, having the slot with the central transverse portion 62, the forward extension 63 at one side and the rearward extension 64 arranged at the other side, substantially as and for the purposes set forth. 27th. In a motor vehicle, the frame or support mounted on the vehicle, consisting of transverse hollow members joined to, and interiorly in connection with, longitudinal hollow members, and the motor bodily supported by said frame, and connected to communicate with the interior thereof, substantially as described. 28th. In a motor vehicle, a motor support consisting of transverse and longitudinal hollow members joined to constitute a frame, the one member thereof being internally in communication with another, the same being movably mounted on the vehicle, and the motor supported on said hollow frame and movable therewith, a part of the motor apparatus having a passage connection or communication with the hollow frame, substantially as set forth. 29th. In a motor vehicle, a motor-supporting hollow frame, mounted on the vehicle, the motor mounted on said hollow frame, and having the exhaust passage or passages thereof connected to and communicating interiorly with said hollow frame, whereby the latter, in addition to constituting the motor support, also constitutes a muffler for the motor, substantially as described. 30th. In a motor vehicle, a motor support consisting of transverse and longitudinal hollow members joined to constitute a frame, the one member thereof being internally in communication with another, said frame being movably mounted on the vehicle, the motor mounted on said hollow frame having communication interiorly therewith, and bodily and adjustably movably therewith, a vehicle driving shaft in fixed bearings on the vehicle having a pulley-like driving appliance, and a belt driven by the motor and in contact around said pulley-like appliance, substantially as and for the purposes set forth.

No. 64,089. Grain Cleaner and Shaker.

(*Nettoyeur de grain.*)

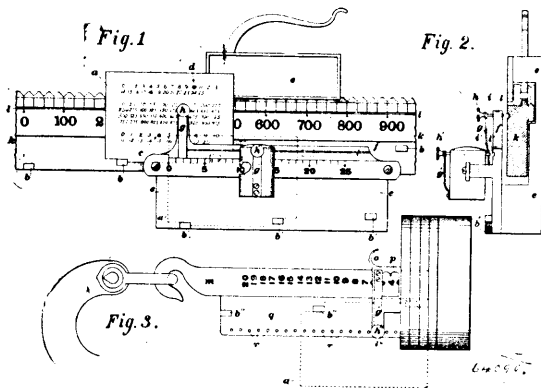


Samuel C. Pierce, Highfield, Prince Edward Island, Canada, 30th September, 1899; 6 years. (Filed 28th May, 1897.)

Claim.—The combination with the driving mechanism of a threshing machine of a grain cleaner and shaker comprising the shaker D, hopper H, sieves S<sup>1</sup>, S<sup>2</sup>, S<sup>3</sup>, said shaker, hopper and

seives being firmly fastened together by means of the frame K, and suspended from the casing of the machine by means of the steel spring straps TTTT, means for moving said hopper, shaker and seives in a longitudinal direction, fan F, means for revolving said fan, vent V for exit of the cleaned grain, all combined and arranged, substantially as shown and described.

**No. 64,090. Weight Register. (Balance à registre.)**

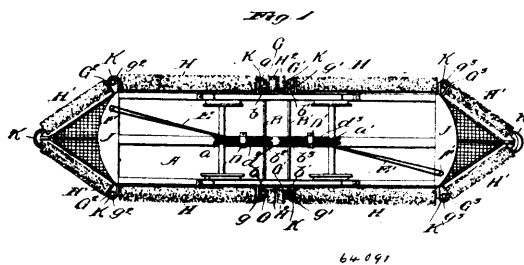


Henry Fairbanks, St. Johnsbury, Vermont, U.S.A., 30th September, 1899; 6 years. (Filed 17th May, 1899.)

*Claim.*—1st. In a weighing scale, a beam having a series of lateral projections horizontally spaced according to the graduations on the beam and vertically spaced according to a predetermined unit, substantially as described. 2nd. In a weighing scale, a poise thereon having a registering device or pointer, said beam being provided with means for supporting a properly graduated card or ticket at varying positions after bringing its proper graduation opposite the registering device, substantially as described. 3rd. In a weighing scale, a beam, a poise sliding thereon carrying a registering device, said beam having a series of supports for a properly graduated card, and spaced horizontally according to the graduations of the beam, and vertically according to a predetermined unit, whereby the proper graduation on said card or ticket is brought opposite the registering device, substantially as described. 4th. In a weighing scale, a beam, a horizontally sliding poise thereon, carrying a puncturing or marking pointer, said beam having a series of horizontally and vertically spaced supports for a graduated card or ticket, substantially as described. 5th. In a weighing scale, a scale beam having a series of projections standing out from its side, spaced equally to each other and to some multiple of the weight graduation, and placed at regularly varying distances below the top of the beam, adapted to locate a prepared ticket, accurately in one of several definite positions upon the side of the beam, corresponding to its weight graduations, each said position higher or lower than the last, in combination with a marking point carried by the sliding poise, in a manner when pressed to mark the said ticket, at the prearranged part of its surface, and to indicate and register the position of the said poise upon the beam, as herein described. 6th. In a weighing scale, a poise sliding upon the scale beam, having one side standing off from the side of the beam sufficiently to allow a prepared ticket to be inserted between, in combination with a series of small projections or studs standing out from that side of the beam, spaced to correspond with some multiple of its graduation, each placed regularly higher or lower than the last, and adapted to definitely locate the said ticket by proper notches in its lower edge, engaging the said projections in one of several prearranged positions along the length of the beam, and in combination with a marking point carried by the said poise, arranged to be moved against the said ticket, as specified. 7th. In a weighing scale, a poise sliding upon the scale beam, having one side standing off from the side of the beam sufficiently to allow a prepared ticket to be inserted between, and a marking point carried by this poise, in combination with a ticket upon which are printed several lines of figures corresponding in horizontal spacing and value to the weight graduations of the said beam, and with projections from the beam into the space between its side and that of the poise, arranged to engage notches in the edge of the said ticket and to definitely locate the same in any one of several predetermined positions, each position differing from the last horizontally by a distance equal to the length of a row of figures upon the ticket, and vertically by the regular distance of the said rows apart, as herein set forth. 8th. In a weighing scale, the scale beam provided with projections from its side adapted to definitely locate a prepared ticket, a ticket with angles fitting the said projections, a poise capable of being moved along the scale beam, a marking point carried by this poise, and a groove in the side of the

beam at the level of the said point, and giving clearance for the same as it punches the ticket at that exact level, as specified. 9th. In a weighing scale, a counterpoise having a stem with a thin flange standing out into the space where the slot in the weight gives room for it, a weight follower sliding upon the said stem, a marking point carried by this weight follower, a series of projections from the side of the said flange, at distances corresponding to some multiple of the thickness of the smallest loose weight to be used upon the counterpoise, and at regularly varying distances from the stem along which the said follower slides, and a ticket having notches upon its edge adapted to engage the said projections, and to be definitely located thereby in one of several accurately prearranged positions, namely, the one where, as the weight follower then stands, the said marking point may strike it, as herein described. 10th. In a weighing scale, a counterpoise having a flat stem with a thin flange standing out into the space where the slot in the weight gives room for it, a weight follower sliding upon this stem, and a marking point carried by this weight follower along a path parallel to the said stem, in combination with a ticket on which are printed several lines of figures corresponding to the accumulating weight balanced by the several slotted weights placed upon the said counterpoise, these figures spaced in each line to correspond with multiples of the thickness of the smallest weight, and in combination with projections from the said flange, engaging notches or angles in this ticket, arranged to vary the distance that the ticket is carried from the counterpoise stem in successive positions as much as the lines of figures upon this ticket are spaced apart, as herein described. 11th. In a weighing scale, a counterpoise stem having a thin flange standing out from it, a weight follower sliding upon this stem, a marking point carried by this weight follower, projections from the said flange adapted to engage the angles of a prepared ticket and accurately locate the same, and a row parallel with the counterpoise stem of holes through the edge of the said thin flange, spaced to allow the marking point passing through the ticket to find clearance in any one of them, as specified. 12th. In a weighing scale, the combination of a marking poise and guide projections upon the scale beam for accurately locating a prepared ticket to receive the correct registering mark, with a marking weight follower upon the counterpoise stem, and guide projections for accurately locating the same ticket by its angles to receive there the correct registering mark, the two marks combined giving accurately the weight of the whole load, as herein fully set forth. 13th. In a weighing scale, a beam, a poise thereon having a registering device or pointer, a secondary beam supported on the main poise and provided with a secondary poise also having a registering device or pointer, said beam and main poise being provided with means for supporting a properly graduated card or ticket at varying positions to bring its proper graduation opposite the respective registering devices, substantially as described. 14th. In a weighing scale, a beam, a poise thereon having a registering device or pointer, a secondary beam supported on the main poise and provided with a secondary poise also having a registering device or pointer, a counterpoise stem having also a registering device or pointer, said beam, main poise and counterpoise stem provided with means for supporting a single properly graduated card or ticket at varying positions to bring its proper graduation opposite the respective registering devices, substantially as described.

**No. 64,091. Car Fender. (Defense de chars.)**



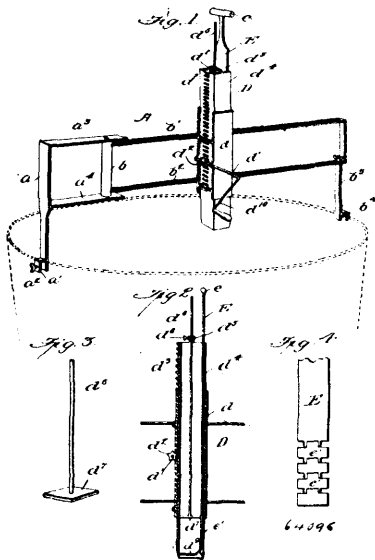






ladder proper provided with engaging members, of a supporting frame, comprehending legs working between said engaging members, a spreader arm adapted to regulate the spread of the supporting frame from the ladder, and spread regulating mechanism, substantially as set forth. 7th. The combination with a ladder proper provided with engaging members and a supporting frame comprehending legs working between said engaging members, of a sliding frame on the legs, a spreader arm uniting said frame, and the ladder proper, and spread regulating mechanism, substantially as set forth. 8th. The combination with a ladder proper provided with engaging members, of a supporting frame comprehending legs working between the engaging members, a sliding frame on the legs, a collar pivotally united to the ladder, a spreader arm uniting the sliding frame and collar, and means for adjustably connecting the collar and spreader arm, substantially as set forth. 9th. The combination with a ladder proper provided with engaging members, of a supporting frame comprehending legs working between the engaging members, a sliding frame on the legs, a collar pivotally united to the ladder, a cam working in the collar, and a spreader arm adjustably connecting the sliding frame and the collar through the aid of the cam, substantially as set forth.

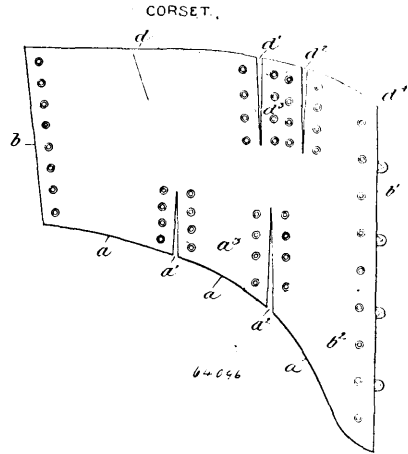
**No. 64,095. Butter Cutter. (Coupe beurre.)**



James Albert Whaley, Carberry, Manitoba, Canada, 30th September, 1899; 6 years. (Filed 6th June, 1899.)

*Claim.*—1st. An apparatus for cutting butter, comprising a support adapted to be attached to the edge of a tub and a cutter adjustably mounted on said support, substantially as described. 2nd. An apparatus for cutting butter, comprising an adjustable support adapted to be removably attached to the edge of a tub and a cutter adjustably mounted on said support, substantially as described. 3rd. An apparatus for cutting butter, comprising a support, having a fixed portion and adjustable portion pivotally secured to said fixed portion and a cutter adjustably mounted on the pivoted portion of said support, substantially as described. 4th. An apparatus for cutting butter, comprising an adjustable support adapted to be movably attached to the edge of a tub, a casing adjustably connected with said support, a cutter adjustably mounted in said casing, and a cutter blade slidably arranged in said cutter, substantially as described. 5th. An apparatus for cutting butter, comprising an adjustable support adapted to be removably attached to the edge of a tub, a casing adjustably connected with said support, a crank shaft journaled in said casing, a gear fixed upon said shaft, a cutter slidably mounted in said casing, a rack on said cutter in engagement with said gear, a cutter blade slidably mounted in said cutter, and an ejector adjustably mounted within said cutter, substantially as described. 6th. An apparatus for cutting butter, comprising an adjustable support adapted to be removably attached to the edge of a tub, a casing adjustably connected with said support, a cutter adjustably mounted in said casing and provided with guide grooves along its edge and lower portion, a cutter blade having at its lower end a series of pivoted cutter links and adapted to slide in said guide grooves, and an ejector adjustably mounted in said cutter, substantially as described.

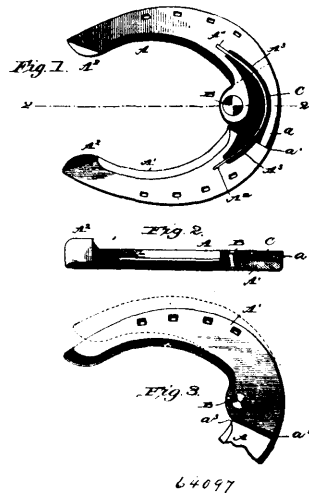
**No. 64,096. Corset. (Corset.)**



Lillian Granville Walker, Boston, Massachusetts, U.S.A., 30th September, 1899; 6 years. (Filed 9th March, 1899.)

*Claim.*—The design for a corset, as herein shown and described.

**No. 64,097. Horseshoe. (Fer à cheval.)**



Louis P. Touchet, Watertown, New York, U.S.A., 30th September, 1899; 6 years. (Filed 2nd March, 1899.)

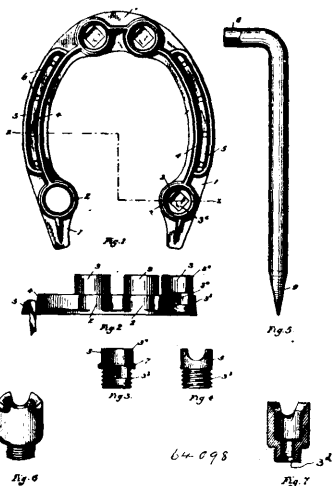
*Claim.*—1st. An expandible horseshoe, composed of separable members pivotally connected together and provided with spring containing recesses and spring-holding sockets adjacent to the pivot, and a spring held in said sockets and extending circumferentially of said pivot, substantially as specified. 2nd. An expandible horseshoe, composed of separable members pivoted together at the inner face of the toe portion and provided with spring-retaining sockets, a flat spring seated at its opposite ends in said sockets, upwardly extending clips provided at the inner ends of said members, and a contacting shoulder to limit the expansion of said members, substantially as specified. 3rd. An expandible horseshoe, composed of recessed members pivoted together at the centre of their inner edge opposite to the point of the frog of the hoof, a semi-circular flat spring held at its opposite ends in sockets formed in the opposite members of the shoe adjacent to the pivot, and stops to limit the expansion of said shoe, substantially as specified.

**No. 64,098. Horseshoe. (Fer à cheval.)**

William Raymond Kinnear, Columbus, Ohio, U.S.A., 30th September, 1899; 6 years. (Filed 25th February, 1899.)

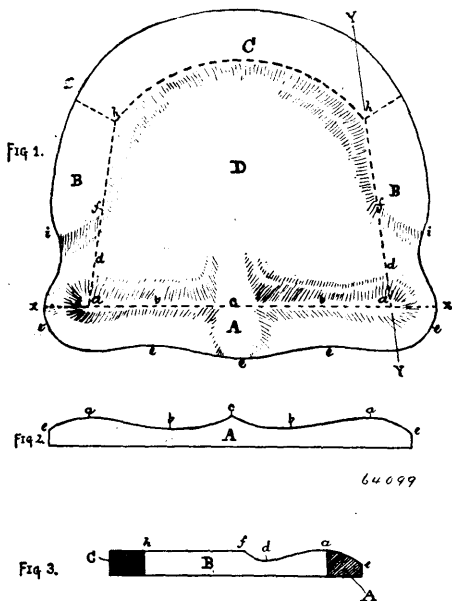
*Claim.*—1st. A horseshoe formed of the body portion 1, hollow internally threaded bosses or projections 2, rib 4 extending between the bosses, and hollow externally threaded calks to fit the bosses, the said calks having an internal socket located below the outer edge or tread portion of the calk to receive a wrench, substantially as shown and described. 2nd. A horseshoe having bosses or projections 2 threaded to receive a calk, and a hollow externally threaded calk to removably enter said bosses, having a sharp tread and its inner ends solid or closed, and also having an internal polygonal wrench

socket, the walls of which are below or beyond the outer edge or tread portion of the calk, and extend beyond or above the tread face



of the shoe when in position, whereby said polygonal socket is protected against injury from contact with the pavement, substantially as shown and described. 3rd. A tubular or hollow horseshoe calk, having its tread recessed or indented, and the edges thereof beveled, substantially as and for the purpose explained. 4th. A tubular or hollow horseshoe calk threaded at one end to enter the shoe proper and having a wrench receiving opening extending through the upper or shoe engaging end thereof, substantially as described.

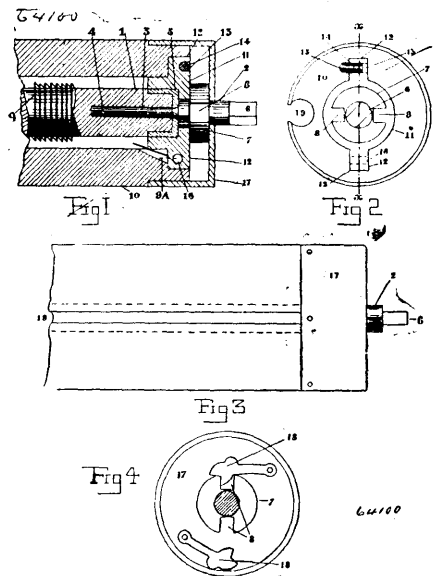
**No. 64,099. Chair Seat.** (*Siège de fauteuil.*)



William Button, Wingham, Ontario, Canada, 30th September, 1899; 6 years. (Filed 10th May, 1899.)

*Claim*—As a new article of manufacture, the combination in a chair seat, of a supporting frame consisting substantially of the front piece A having on the line *xx* an outward depression laterally from the points *aa*, an inward depression from said points *aa* to points *bb* and an upward curve there from to point *c* the same front piece having a coinciding forward or outward depression to the front edge *eecc*, two side pieces *BB* flat on top from point *h* to point *f* with a downward curve to point *d*, upward curve therefrom to point *e* and an outward depression from the line *fa* and the rear or back circular piece *C* having a flat top, all securely fastened together, and an impervious top *D* of thin wood or other suitable material, pressed into shape so as to conform to fit the aforesaid described frame and secured thereto, the top *D* having also an inward depression from the lines *aa* and *ifhht*, substantially in the manner and direction shown and for the purposes specified,

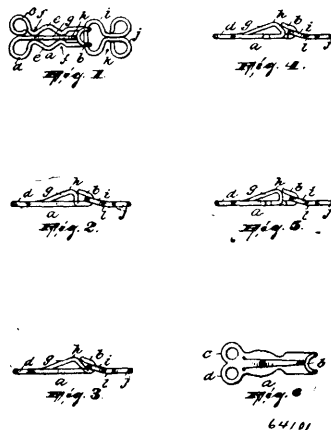
**No. 64,100. Spring Roller for Window Blinds.**  
(*Rouleau à ressort pour stores de fenêtre.*)



William Swarbrick, 4 Matlock Avenue, Aintree, Liverpool, Lancaster, England, 30th September, 1899; 6 years. (Filed 12th May, 1899.)

*Claim*.—1st. In a spring roller for blinds the combination of a fixed spindle, a roller free to revolve thereon, means for securing their relative positions, a spring to cause relative rotation, a casting 11 having hole 16 to which one end of the spring is secured, and brad, with turned over end 14 which lies in a channel 13 in said casting, whereby said casting is held in place in the roller 10, substantially as described. 2nd. A window blind roller comprising a roller proper of wood, supported and rotatable on a fixed spindle and means for retaining their relative positions, in combination with an uncut groove in said roller for the purpose of attaching the blind, substantially as described.

**No. 64,101. Hook and Eye.** (*Agrafe et porte agrafe.*)

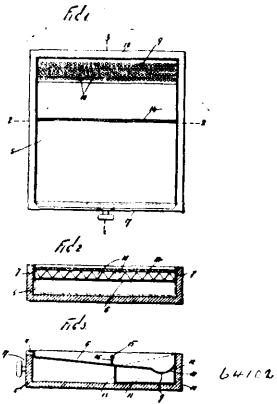


Edwin W. Groeschel, Jersey City, New Jersey, U.S.A., 30th September, 1899; 6 years. (Filed 31st May, 1899.)

*Claim*.—1st. A hook for a hook and eye, consisted of the eyelets, bill and shank, the latter comprising two spaced members, and a tongue projecting toward said bill from the eyelet end of the hook and being deflected near its free end downwardly and terminating between the shank members, the deflection in said tongue being gradual, and the tip of the bill terminating short of said deflection and in a horizontal plane therewith, substantially as described. 2nd. A hook for a hook and eye, consisting of the eyelets, bill and shank, the latter comprising two spaced members, and a tongue situated between said shank members and being inclined from the shank upwardly toward, and then deflected near its free end downwardly from the bill, and terminating between said shank members, the deflection in said tongue being gradual, and the tip of the bill terminating short of said deflection and in a horizontal plane therewith, substantially as described. 3rd. A hook for a hook and eye

consisting of the eyelets, bill and shank, the latter comprising two spaced members, and a tongue situated between said shank members and being inclined from the shank upwardly toward, and then deflected near its free end downwardly from, the bill and terminating between the shank members, the deflection in said tongue being gradual and in, or approximately in, a horizontal plane and contact with the tip of the bill, and the shank members having oppositely disposed and inwardly projecting incurvations opposite the inclined portion of the tongue, substantially as described. 4th. A hook for a hook and eye, consisting of the eyelets, bill and shank, the latter comprising two spaced members, and a tongue situated between said shank members, and being inclined from the shank upwardly toward, and deflected downwardly from, the bill and terminating between the shank members, the end portion of the tongue being re-bent near its extremity in the plane of the shank, the deflection in said tongue being gradual and in, or approximately in, a horizontal plane and contact with the tip of the bill, and the shank members having oppositely disposed and inwardly projecting incurvations opposite the inclined portion of the tongue, substantially as described. 5th. An eye for a hook and eye, consisting of a loop with which the hook is adapted to engage and a securing or attaching device for said loop comprising three members, two of said members consisting of a pair of closed eyelets situated close to said loop and the other of said members consisting of a short shank integrally connecting said eyelets and the loop and forming therewith contracted recess for the reception of the securing threads, substantially as described. 6th. An eye for a hook and eye, consisting of a loop with which the hook is adapted to engage and a securing or attaching device for said loop comprising three members, two of said members consisting of a pair of closed eyelets situated close to said loop and the other of said members consisting of a short shank integrally connecting said eyelets and the loop and forming therewith contracted recesses for the reception of the securing threads, said loop being deflected out of the plane of its attaching device, substantially as described.

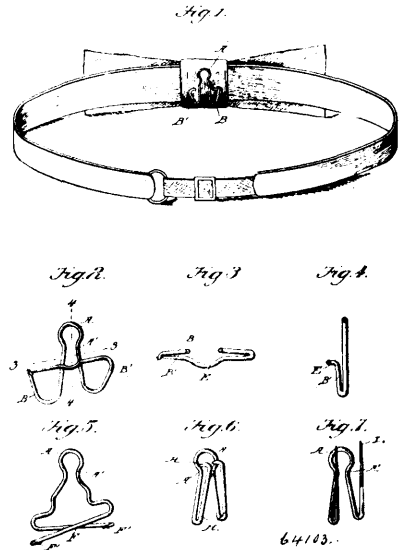
**No. 64,102. Drawer and Tray for Dentists' and Jewelers' use.** (*Tiroir et plateau pour dentistes et bijoutiers.*)



Thomas Charles Howcroft, Uttoxeter, Staffordshire, England, 30th September, 1899; 6 years. (Filed 13th May, 1899.)

*Claim.*—1st. A drawer for use by dentists, jewellers and others said drawer being provided in the back thereof with a receptacle, and a downwardly and backwardly inclined tray which overlaps said receptacle, and the rear end which is perforated, substantially as shown and described. 2nd. A drawer for the purpose herein described provided with a receptacle in the rear end thereof, and a downwardly and backwardly inclined tray which overlaps said receptacle, and the rear end of which is perforated and a transverse guard which is placed over said tray, substantially as shown and described. 3rd. A drawer for the purpose herein described provided in the rear end with a receptacle, and a downwardly and backwardly inclined tray, the rear portion of which is provided with a transverse perforated depression, said tray and said receptacle being removable, substantially as shown and described. 4th. A drawer provided in the rear end with a transverse receptacle, and a downwardly and backwardly inclined tray which overlaps said receptacle, and the rear portion of which is provided with a transverse perforated depression, said tray and receptacle being removable, and the tray being provided with a transverse guard, substantially as shown and described. 5th. A drawer for the purpose herein described, provided in the rear end with a transverse removable receptacle, and downwardly and backwardly inclined removable tray, the rear portion of which overlaps said receptacle and is perforated, said tray being also provided with a transverse guard having depending teeth or projections, and the front of said tray being provided with a raised projection, substantially as described.

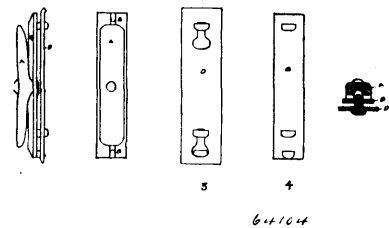
**No. 64,103. Necktie Holder.** (*Porte-cravate.*)



David D. Wadsworth, Escondido, California, U.S.A., 30th September, 1899; 6 years. (Filed 9th May, 1899.)

*Claim.*—1st. A necktie holder formed of a single piece of wire, the middle portion of which is bent to form an arching loop, the ends of the wire being bent to form a retaining pin whereby the holder is fastened to the tie, substantially as shown and described. 2nd. A necktie holder formed from a single piece of wire, the middle portion of which is bent to form an engaging loop, while the ends thereof are bent to form the side loops, one of said ends being bent to form a hook, while the other is formed as a pin with a point which engages said hook, and with a bend at that point where it passes the engaging loop, extending away from said loop to permit the free passage of the button head into the loop, substantially as shown and described.

**No. 64,104. Device for Holding Fast the Ends of Binding Cord.** (*Appareil pour assujettir les bouts de cables.*)



Septimus Alfred Clark, Regina, North-west Territories, Canada, 30th September, 1899; 6 years. (Filed 9th May, 1899.)

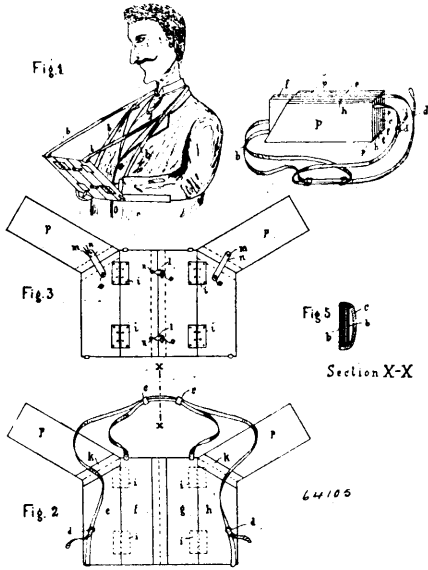
*Claim.*—The combination of the rocking cleat, having a groove on the underside, engaging with a corresponding ridge upon the base plate, together with the slotted locking bar for attaching same, all substantially as and for the purpose hereinbefore set forth.

**No. 64,105. Reading and Writing Desk.** (*Pupitre.*)

Heinrich Schnell, Cologne, Rhineland, Prussia, 30th September, 1899; 6 years. (Filed 8th May, 1899.)

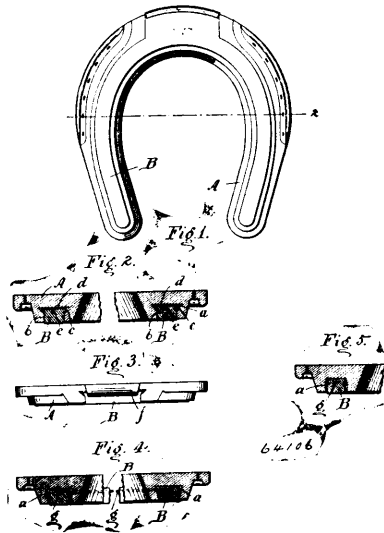
*Claim.*—1st. A reading and writing desk, with a slab which is hung onto the upper body at a regulatable distance from the eyes, with its lower edges resting in front against the body, and which is slantingly directed outwards and upwards. 2nd. A reading and writing desk with a slab which is hung onto the upper body at a regulatable distance from the eyes, with its lower edges resting in front against the body, and which is slantingly directed outwards and upwards, the slab consisting of several pieces which are bound to each other, and can be folded up, and yet are provided with contrivances for maintaining a rigidity of the entire surface when folded

out. 3rd. A reading and writing desk, with a slab which is hung onto the upper body at a regulateable distance from the eyes, with



its lower edges resting in front against the body, and which is slantingly directed outwards and upwards, the slab provided with lateral extensions for supporting the arms.

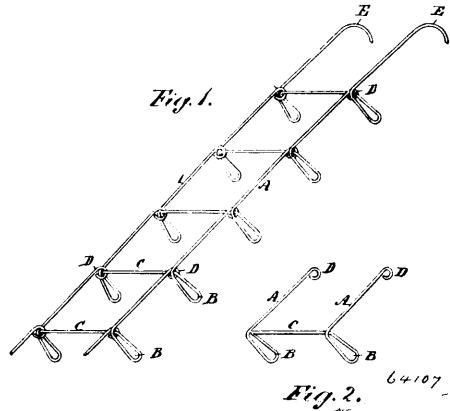
No. 64,106. Horseshoe. (Fer à cheval.)



William R. Howe, Dayton, Ohio, U.S.A., 30th September, 1899; 6 years. (Filed 14th April, 1899.)

Claim.—1st. A horseshoe, provided with a groove on its under surface wider in cross section within than at the surface, and an elastic packing secured in said groove but not completely filling same, so that there shall be space for expansion of the packing. 2nd. A horseshoe, provided with a groove on its under surface wider in cross section than at the surface, and an elastic packing partly filling said groove, also wider within than at the surface of the groove, so that the packing can expand under external pressure while at the same time holding itself within the groove. 3rd. A horseshoe, provided with a groove on its under surface wider in cross section than at the surface and with an opening on the front wall at the toe, and an elastic packing filling said toe opening and secured in said groove but not completely filling same, so that there shall be space for expansion of the packing within the groove. 4th. A horseshoe, provided with a groove on its under surface wider in cross section than at the surface, and with an opening in the front wall at the toe and an elastic packing partly filling said groove, also wider within than at the surface of the groove, so that the packing can expand under external pressure while at the same time holding itself in the groove.

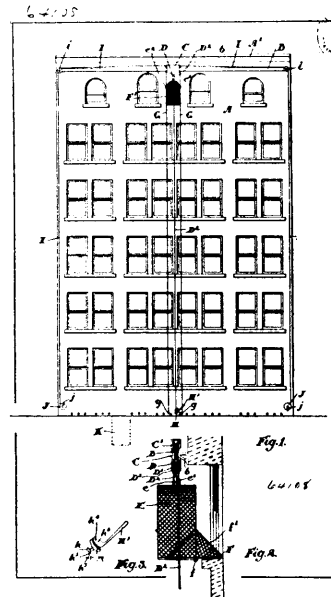
No. 64,107. Flexible Iron Ladder. (Echelle de fer flexible.)



Alexander N. Cameron, Perth, Ontario, Canada, 30th September, 1899; 6 years. (Filed 6th April, 1899.)

Claim.—A flexible iron ladder for walls and roofs of buildings, composed of sections of wire or rod iron hooked together, each section having parallel side bars A, A, loops forming legs or feet B, B, step bar or wrung C, and connect-hooks D, D, as set forth.

No. 64,108. Fire Escape. (Sauveteur d'incendie.)



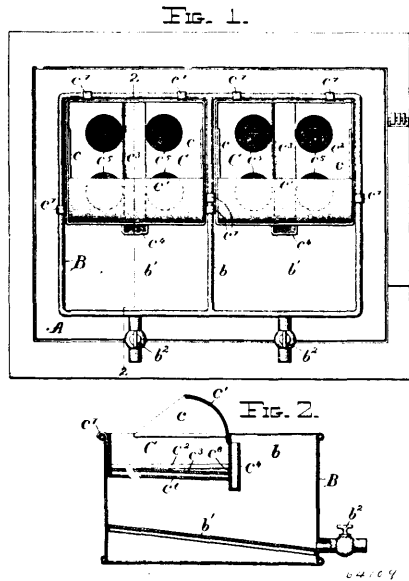
John George Harvey, Todmorden, Ontario, Canada, 30th September, 1899; 6 years. (Filed 1st April, 1899.)

Claim.—1st. The combination with a suitable support at the top of the building, of a cage provided with a swinging platform at the rear end designed to rest upon the sill of the window and a wire rope connected to a block on the support and to the cage and passing down to the bottom of the building, suitable eyes on the side of the cage and guy wires fastened at the top of the building and passing through the eyes of the cage and suitably secured at the bottom and means for securing the supporting wire for the cage at the bottom of the building, as and for the purpose specified. 2nd. The combination with a suitable support at the top of the building, of a cage provided with a swinging platform at the rear end designed to rest upon the sill of the window and a wire rope connected to a block on the support and to the cage and passing down to the bottom of the building, suitable eyes on the side of the cage and guy wires fastened at the top of the building and passing through the eyes of the cage and suitably secured at the bottom, the clamp provided with a hook secured to a suitable device at the bottom of the building and the arm pivoted on the clamp and designed to exert a frictional pressure on the wire rope, as shown and for the purpose specified. 3rd. In combination, a track extending along near the top of the building and suitably secured thereto and the carriage provided with wheels supported on such track, and means for longitudinally adjusting the carriage upon the track of the cage and a wire rope for raising and lowering the same connected to the

top of the cage and passing through a suitable block at the bottom of the carriage and down to the ground, as and for the purpose specified. 4th. In combination, a track extending along near the top of the building and suitably secured thereto and the carriage provided with the wheels supported on such track, the ropes connected to the ends of the carriage and passing along pulleys at the ends of the track and suitable drums and crank handle to which each rope is connected at the bottom of the building and a wire rope for raising and lowering the same connected to the top of the cage and passing through a suitable block at the bottom of the carriage and down to the ground, as and for the purpose specified.

**No. 64,109. Milk Strainer and Receiving Vessels.**

(*Passoire et recepneur à lait.*)



Erik Samuel Lagerquist, Oxford Depot, New York, 30th September, 1899; 6 years. (Filed 6th June, 1899.)

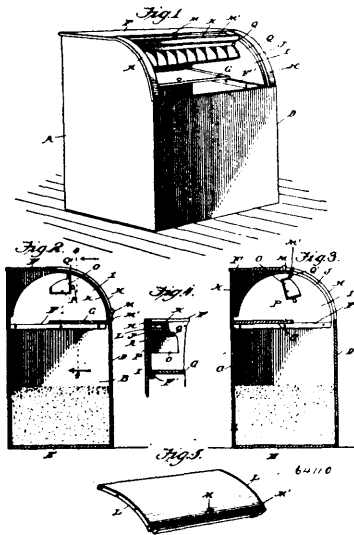
*Claim.*—1st. In an apparatus for receiving and straining milk, a vessel provided with supports, an inclined bottom, a central inclined trough in said bottom extending at its lower end through the side wall of said vessel, screens in said bottom, and a well connected to the lower end of said inclined trough outside of the vessel and having a wall extending to or near the rim of the vessel, substantially as described. 2nd. In an apparatus for receiving and straining milk, a vessel consisting of a rectangular box with clips attached to the sides thereof, an inclined bottom, a central inclined trough in said bottom extending at its lower end through the side wall of said vessel, screens in said bottom, and a well connected to the lower end of said inclined trough outside of the vessel and having a wall extending to or near the rim of the vessel, substantially as described. 3rd. In an apparatus for receiving and straining milk, a vessel provided with supports, a hood upon the rear of said box having extensions upon two opposite sides thereof, an inclined bottom, a central inclined trough in said bottom extending at its lower end through the side wall of said vessel screens in said bottom, and a well connected to the lower end of said inclined trough outside of the vessel and having a wall extending to or near the rim of the vessel, substantially as described.

**No. 64,110. Kitchen Cabinet.** (*Cabinet de cuisine.*)

Sterling J. Underwood, Yale, Oklahoma, U.S.A., 30th September, 1899; 6 years. (Filed 9th May, 1899.)

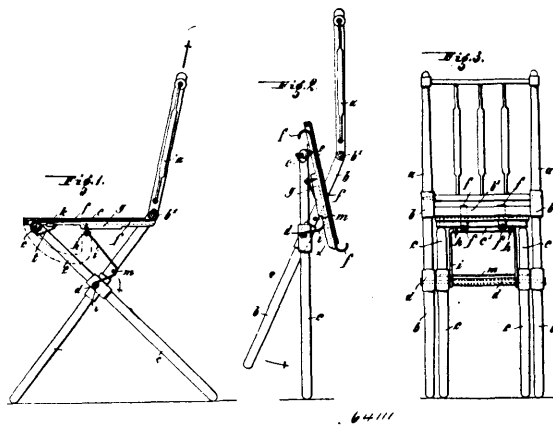
*Claim.*—1st. In a kitchen cabinet, the combination with the main body provided with a curved sliding groove, of horizontal strips secured to the inner surface of the side pieces, and a slidable lid and bread board mounted thereon, of a width from front to rear somewhat less than the length of the supporting strips, substantially as described. 2nd. In a kitchen cabinet, the combination with the flour bin its slidable lid and bread board, and the curved sliding lid, of the pivoted spice tray, and the cross bar supported in position to serve as a step to the tilting of the till in either direction, substantially as described. 3rd. The herein described kitchen cabinet, comprising the side pieces A and B having curved upper, front corners, the back C extending from the bottom of the sides, the front D extending from the bottom of the sides to the lower end of their curved upper corners, the bottom E and top F, extending from the rear edge to the upper end of the curved corners of the side

pieces, the semi-cylindrical pieces secured to the inside of the side pieces concentric with their curved strips secured upon the curved



corners of the side pieces projecting inward and forming grooves J around the outer edge of the semi-circular pieces I, the horizontal strips F, the slidable lid and bread board G, of a width less than the depth of the cabinet from front to rear supported upon said horizontal strips, the tilting till, and the cross bar R secured in position to form a stop to limit the tilting of the till in either direction, substantially as described.

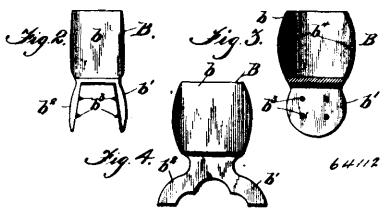
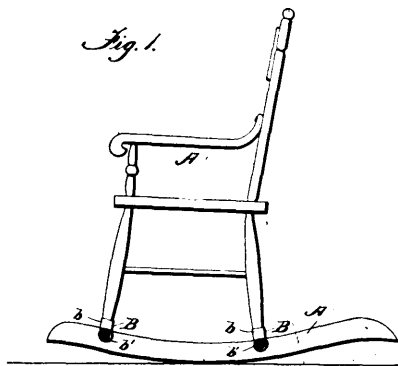
**No. 64,111. Folding Chair.** (*Fauteuil pliant.*)



Heinrich Ludwig Carl Friederich Ihde, 19 Henrietten Strasse, Hamburg, German Empire, 30th September, 1899; 6 years. (Filed 23rd May, 1899.)

*Claim.*—1st. A folding-chair consisting essentially of two frames b and c eccentrically pivoted together by means of a spindle, constructed and arranged substantially as hereinbefore described. 2nd. A folding-chair consisting essentially of two frames b and c eccentrically pivoted together by means of a spindle, characterized by the fact that the seat c is movably connected to the spindle d by means of the bent-rod i and to the frame c by means of the chain l or of a suitably formed wire or plate bow, or similar contrivance, in order to take up the stress of the load and to prevent the chair from falling into the open position, constructed and arranged substantially as hereinbefore described. 3rd. A folding-chair consisting essentially of two frames b and c eccentrically pivoted together by means of a spindle, characterized by the fact that the seat c is movably connected to the spindle d by means of the bent-rod i and to the frame c by means of the chain l in order to make up the stress of the load, and to prevent the chair from falling into the open position, and in which the seat c is strengthened by means of flat-iron pieces f the semi-circular bent ends of which engage the transverse rods b<sup>1</sup> and c<sup>1</sup> of the frames b and c restricting the motion of the same relative to each other, constructed and arranged, substantially as hereinbefore described.

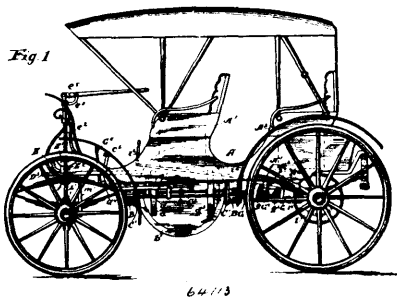
**No. 64,112. Device for Attaching Rockers to Chairs.**  
(Appareil pour assujettir les berceaux aux fauteuils.)



Jean Baptiste Levoie, Montreal, Quebec, Canada, 30th September, 1899; 6 years. (Filed 30th May, 1899.)

*Claim.*—1st. A device for securing a rocker to the legs of a chair, comprising a body-portion adapted to be secured to the leg of a chair and depending flanges integral with said body-portion and adapted to be clamped upon the sides of a rocker, substantially as described. 2nd. A device for securing a rocker to the legs of a chair, comprising a hollow body-portion adapted to be secured to the end of the chair leg, and side flange integral with said body-portion and adapted to be clamped upon the sides of a rocker, and having inwardly projecting spurs for engaging the said rocker, substantially as described.

**No. 64,113. Motor Vehicle.** (Automobile.)

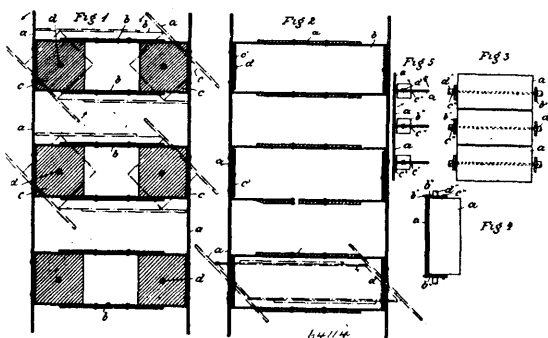


William O. Worth, Chicago, Illinois, U.S.A., 30th September, 1899; 12 years. (Filed 14th June, 1899.)

*Claim.*—1st. In a motor vehicle the combination of the driven shaft, the rear axle and the gearing for driving the same, with the mechanism for transmitting variable motion from the driven shaft to said gearing, consisting of the sectional shaft, a fixed pinion on one section of the shaft, and a loose gear on the other section thereof, the amplifying gearing between said pinion and loose gear, and the clutch splined on that section of the shaft carrying loose gear and adapted to be shifted into engagement either with the pinion or the said loose gear, for the purpose and substantially as described. 2nd. In a motor vehicle the combination of the rear axle made in sections, wheels on the outer ends thereof, opposite bevel gears on the inner ends of said sections, a large bevel gear intermediate said opposite beveled gears, diametrically opposite pinions journaled in slots in said large bevel gear and meshing with both said opposite bevel gears, and a level pinion meshing with said large bevel gear with a sectional housing inclosing all said gears and provided with tubular extensions inclosing and supporting axles, said axles having anti-friction bearings in said tubular extensions, for the purpose and substantially as described. 3rd. In a motor vehicle the combination of the main disc driven by the engine, a shaft lying parallel with the outer face of said disc and movable toward or from the same, a second disc on said shaft, and means for moving said

shaft so as to cause the disc to contact or separate, with an idler pulley or wheel also mounted on the said shaft and adapted to counteract the pressure of the second disc against the main disc, substantially as described. 4th. In a motor vehicle the combination of the main disc, means for rotating it, a second disc adjustably mounted upon a shaft lying beside the main disc, mechanism for moving said shaft and disc thereon toward or from the main disc, and mechanism for shifting the disc longitudinally upon said shaft with an idler pulley or wheel also mounted on the said shaft and adapted to counteract the pressure of the second disc against the main disc, substantially as described. 5th. In a motor vehicle the combination of the main friction disc and mechanism for driving the same, with a rock shaft lying beside the disc having its ends bent inward, a second or driven shaft journaled in the ends of said rock shaft, friction disc splined on said driven shaft and adapted to contact the face of the main disc, the levers and connections for rocking said shaft, and mechanism for shifting said disc longitudinally upon the driven shaft, with mechanism for transmitting motion from said driven shaft to the axles or wheels, substantially as described. 6th. In a motor vehicle the combination of the driving shaft, and the adjustable gear longitudinally on said shaft, comprising a rack bar, a gear meshing therewith, a vertical tube, a tubular rack thereon meshing with a pinion beside said gear, and a vertically movable rod in said tube connected with said tubular rack by a pin passed through slots in the tube, all substantially as and for the purpose described. 7th. In a motor vehicle the combination with the power mechanism, and the steering mechanism of the controlling devices comprising a rotatable tube, having an arm on its lower end connected to the steering mechanism, a vertically movable rod within said tube, a tubular rack exterior to the tube connected to said rod by pins projecting through slots in the tube, and gearing operated by said tubular rack controlling the power mechanism with a lever fulcrumed on a bracket on said tube and pivoted to the said rod whereby the rod may be raised or lowered, or the tube rotated separately or together, for the purpose and substantially as described. 8th. In a motor vehicle the combination of the front axle, the spindles pivoted thereto, and the steering arms projecting from said spindles with the rotatable steering-arm, and the spring rods connecting said spindle-arms to said steering arm, for the purpose and substantially as described. 9th. In a motor vehicle the combination of the front axle, the yokes pivoted thereto having spindles for the wheels and steering arms, substantially as described, with the rotatable steering post, having a crank arm on its lower end, and the spring rods connecting said crank arm to said steering arms, for the purpose and substantially as described.

**No. 64,114. Advertising Apparatus.**  
(Appareil d'annonce.)

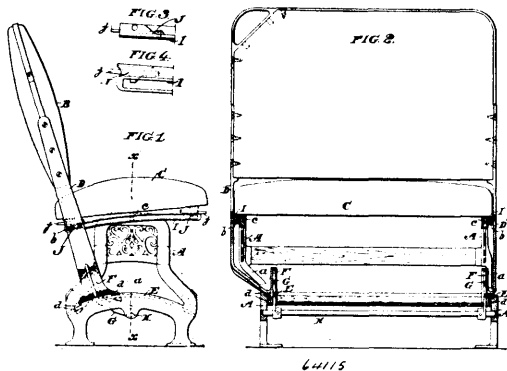


August Klumpp, Munich, Bavaria, Empire of Germany, 30th September, 1899; 6 years. (Filed 30th September, 1898.)

*Claim.*—1st. In an advertising apparatus, a series of moving mechanism each carrying a series of surface or show plates of such a width that when presented to view they stand edge to edge without perceptible intervals of space between their edges, and said series of mechanism disposed at intervals from each other proportional to the width of the surface plates carried by them, substantially as set forth. 2nd. In an advertising apparatus, the combination of several series of surface or show plates, each plate in each series being of such a width as to stand edge to edge with the plates of the adjacent series when presented to view, a series of actuating mechanism each having one of the series of show plates attached and adapted to bring each plate in the series successively into a certain position simultaneously with the corresponding plate of the other series, and each series of mechanism at such a distance from the adjacent series as to bring the edges of the plates when presented to view together without perceptible intervals of space, substantially as set forth. 3rd. In an advertising apparatus, the combination of a number of series of surface or show plates of such a width that when one of each series is presented to view there will be no perceptible interval of space between their adjacent edges, a series of endless chains, bands or the like, to each of which a series of said

show plates are secured, a series of pairs of barrels turning upon central pivots or pintles, each pair carrying one of said chains or bands, substantially as set forth. 4th. In an advertising apparatus, the combination of a number of series of surface or show plates of such a width that when one of each series is presented to view there will be no perceptible intervals of space between their adjacent edges, and a series of rotary barrels each carrying one of said series of plates and causing them one at a time to be presented in a certain position, substantially as set forth.

**No. 64,115. Car Seat. (Siège de chars.)**



Henry Safford Hale, Philadelphia, Pennsylvania, U.S.A.. 30th September, 1899; 6 years. (Filed 22nd June, 1899.)

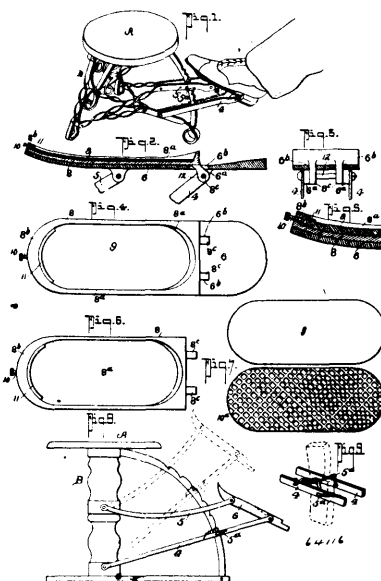
*Claim.*—1st. A car seat in which the side frame, on one or both ends is inset to a substantial extent with reference to the outer end of the seat cushion, and the corresponding shifting side arm which carries the seat back is extended inwardly at its lower end and is movably supported at the inset side frame. 2nd. A car seat in which the side frame, on one or both ends, is inset to a substantial extent with reference to the outer end of the seat cushion, and the corresponding shifting side arms which carries the seat back is extended inwardly at its lower end and is movably supported at the inset side frame and in which the seat cushion is provided at one or both ends with an arm rest inside of the shifting side arm, said side arm being bent or arched over it at the top for connection with the seat back. 3rd. In a car seat, the seat cushion frame provided at one or both ends with an arm rest K having its sides open or cut away as at n. 4th. In a car seat, the shifting side arms extending below the seat cushion and movable bodily from one side of the seat to the other, and a foot rest carried by the shifting side arms below the seat cushion and movable bodily with them. 5th. A car seat in which the side frame at one or both ends is inset to a substantial distance for the end of the seat cushion, and the shifting side arm is bent inward under the projecting end of the seat cushion and extends through an aperture in the side frame. 6th. In a car seat, side frames located below the seat cushion, shifting side arms guided by said side frames and movable bodily thereon, a tilting seat cushion and guides between the tilting seat cushion and the shifting side arms, whereby the seat cushion is tilted when the side arms are shifted bodily in reversing the car seat. 7th. In a car seat, side frames located below the seat cushion, shifting side arms guided by said side frames and movable bodily thereon, a tilting seat cushion and guides between the tilting seat cushion and the shifting side arms, whereby the seat cushion is tilted when the side arms are shifted bodily in reversing the car seat and the automatic locking devices for locking the side arms in their extreme positions. 8th. A car seat having side frames and shifting side arms located on the outside of the side frames and having their lower ends below the seat cushion extended on the inner side of said side frame, and motion transmitting connections between the lower ends of the shifting side arms. 9th. In a car seat, the side frames below the seat cushion inset at one or both ends beyond the end of the seat cushion frame, and the seat cushion frame pivoted to the side arms and extending on the outer side thereof.

**No. 64,116. Shoe Fitting Stool. (Tabouret pour chaussures.)**

John W. Smith Portland, Oregon, U.S.A., 30th September, 1899; 6 years. (Filed 19th May, 1899.)

*Claim.*—1st. In a combined foot rest and shoe stool of the character described, a foot rest comprising a body portion, and a socket plate detachably connected to the body portion, pliable bearing faces adapted to fit the said socket portion, and means for detachably holding the said pliable bearing faces in position, substantially as shown and described. 2nd. In a combined shoe stool and foot rest of the character described, the combination with the swinging arms 4, 5, of the base plate 6, having pendent lugs pivotally connected with the arms 5, and having slots 6<sup>a</sup>, a pendent lug 6<sup>a</sup>, adjacent the slot 6<sup>a</sup>, and a detachable plate member 8, having a pendent lug 8<sup>a</sup>, adapted to project through the slots 6<sup>a</sup>, into register with the lugs

6<sup>a</sup>, and means for connecting the lugs 6<sup>a</sup> and 8<sup>a</sup>, with the upper end of the swinging arms 4, substantially as shown and described. 3rd

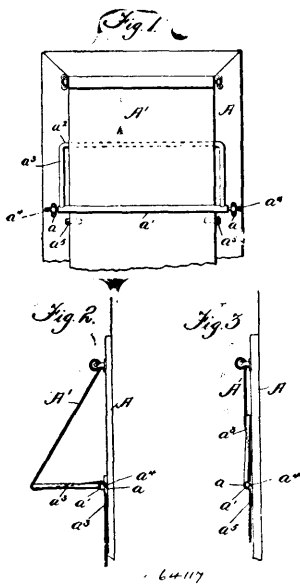


In a combined shoe stool and foot rest of the character described, the combination with the swinging arms 4, 5, and the base plate 6, having pendent lugs near the forward end, adapted to be pivotally connected with the swinging arms 5, and having pendent lugs 6<sup>a</sup> and slots 6<sup>b</sup>, adjacent thereto, of the member 8, having a recessed or socketed upper face adapted to receive detachably held bearing strips or members 9, 10, the rear end of said base plate terminating in a vertically extending heel portion, the lower end of which terminates in pendent ears adapted to be inserted through the slots 6<sup>b</sup> of the plates 6, and to register with the ears 6<sup>a</sup>, means for securing the said ears 6<sup>a</sup> and 8<sup>a</sup>, to the arms, substantially as shown and for the purpose described. 4th. In a combined shoe stool and foot rest of the character described, the combination with the rest member 6, of the member 7, detachably secured upon the said rest member said member 8, having a socketed or recessed upper face, a pliable bearing face detachably held in said socket, the rear end of the socket being of greater depth than the bearing face, whereby a heel abutting ledge is produced, and clamping devices at the front end of the plate A, for securing a pliable piece within the socket of the member 8, substantially as shown and for the purposes described. 5th. In a shoe stool and foot rest of the character described, the combination with the rest plate 6, the arms 4, 5, and means for pivotally connecting said plate with the said arms, of a plate having its upper face socketed and adapted to be detachably connected to the bottom plate 6, the front end of the said plate 8, having an inwardly extending under cut beveled projection, a detachable pliable facing strip held within the socket, the clamp 11, and the set screw 10, all being arranged substantially as shown and for the purposes described. 6th. The combination with the stool pedestal, and the segmental rack bar, of the swinging frame comprising a lower and an upper member, said members having independent pivotal connections with the pedestal, a foot rest pivotally connected to the outer ends of the said lower and upper segmental frame members, the pivotal points of such outer ends being closer engaged than the pivotal points of their inner ends, a detent for locking the frame on the rack bar in a vertically adjusted position, substantially as shown and described. 7th. The combination with the steel pedestal, the vertically disposed rack bar secured thereto, of a swing frame consisting of a pair of upper arms independently pivotally joined to the pedestal and held to straddle the rack bar, and a foot rest pivotally joined to the outer end of the said upper and lower straddle members, the pivotal points of connection of the foot rest being of less separation than the pivotal point of engagement of the inner ends of the said straddle bars, and a detent for locking the one set of said straddle bars in its vertical adjustment on the rack bar, as specified. 8th. The combination with the stool pedestal, and the segmental rack bar, of the lower straddle arm 4, and the upper straddle arms 5, said arms 4, 5, having independent pivotal connection with the stool pedestal and held to straddle the rack bar, the foot rests pivotally connected to the outer ends of the arms 4, 5, and a detent comprising a rack bar journaled on one of the arms 4, 5, and having a crank or loop portion adapted to engage the rack bar, a spring for normally holding said rack portion in engagement with the rack bar and a crank bar forming a part of such rack bar, substantially as shown and for the purposes, described.



No 64,117. Window Blind Fastener and Adjuster.

'Arrête store de fenêtre.



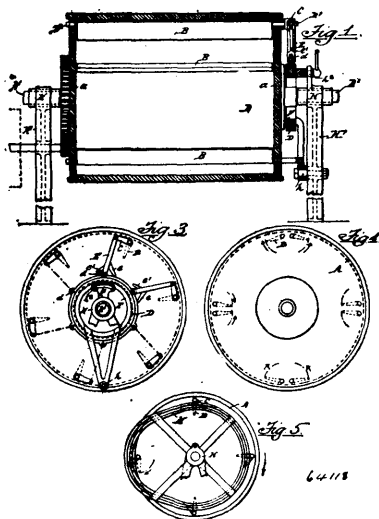
64117

George Arbuthnott Smith, Alberni, British Columbia, Canada, 30th September, 1899; 6 years. (Filed 16th June, 1899.)

Claim.—1st. A window blind fastener and adjuster, comprising a yoke shaped frame pivotally attached to the window frame and adapted to receive the window blind between its members, substantially as described. 2nd. A window blind fastener and adjuster, comprising a rod pivotally secured to the window frame, a yoke shaped frame fixed to said rod and adapted to receive the window blind between the said frame and the said rod, substantially as described. 3rd. A window blind fastener and adjuster, comprising a rod pivotally secured to the window frame, a yoke shaped frame parallel with said rod and connected therewith by side arms and adapted to receive a window blind passed between said arms and said rod, substantially as described.

No. 64,118. Churn and Butter Worker.

(Baratte et batte à beurre.)



64118

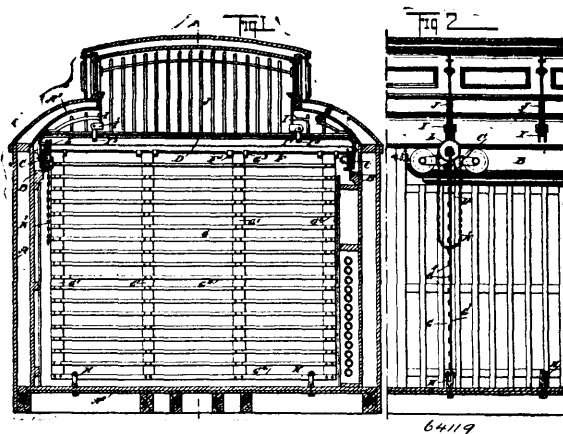
David Townsend Sharples, West Chester, Pennsylvania, U.S.A., 30th September, 1899; 6 years. (Filed 22nd May, 1899.)

Claim.—1st. The combination with the rotary drum or vessel, of pressers mounted therein and operating mechanism engaging therewith and adapted to impart to the same a rocking movement of their own while they are being rotated bodily with the drum. 2nd. The combination with the rotary drum or vessel, of pressers mounted therein, and operating mechanism for said pressers whereby the latter are automatically swung into position to successively seize, press and release the butter or other material contained in the rotating drum. 3rd. The combination with the rotary drum or

vessel, of pressers mounted therein, and operating mechanism engaging therewith and adapted to impart to the same a rocking movement of their own while they are being rotated bodily with the drum, said mechanism being arranged to automatically rock said blades successively into approximately radial position when fully lowered, and thereafter to swing the same, first towards the wall of the drum in the direction of rotation and then away from said wall, whereby the contained butter is successively seized, pressed and released by the pressers during the rotation of the drum. 4th. The combination with the rotary drum or vessel, of pressers mounted therein, operating mechanism engaging the said pressers and adapted to impart to the same a rocking movement of their own while they are being rotated with the drum and means for holding said pressers in substantially fixed position relative to the wall of the rotating drum. 5th. The combination with the rotary drum or vessel, of a series of pressers mounted therein and having gudgeons or shafts projecting through the head of the drum, operating mechanism engaging said projecting gudgeons or shafts and adapted to impart to each pressor a rocking motion of its own while it is being rotated bodily with the drum, and means for locking said operating mechanism to hold the pressers in approximately fixed position within the rotary drum, substantially as set forth. 6th. The combination with the rotary drum or vessel, of a series of pressers mounted therein, cranks fixed to the axes thereof, an adjustably fixed eccentric, a ring or strap rotatably mounted on said eccentric, links connecting said ring or strap to said cranks, and steps to limit the movement of said links on their pivotal connection to said ring or strap, substantially as set forth. 7th. The combination with the rotary drum or vessel, of a series of pressers mounted therein, cranks fixed to the axes thereof, an adjustably fixed eccentric, links connecting said ring or strap to said cranks, and a series of stops adapted to stop the pivotal movement of each of said links in succession and thereby regulate the movement of the ring or strap with the drum, substantially as set forth. 8th. The combination with the rotary drum or vessel, of a series of pressers mounted therein, cranks fixed to the axes thereof, an eccentric, a ring or strap thereon, links connecting said ring or strap to said cranks, and a series of stops at front and rear of said links to regulate the movement of the ring or strap with the drum, substantially as set forth. 9th. The combination with a rotary drum or frame, of a series of rockers mounted therein, an adjustably fixed eccentric, a ring or strap rotatably mounted on said eccentric, links connecting said ring or strap to said rockers and stops to limit the movement of said links on their pivotal connection to the ring or strap, substantially as set forth.

No. 64,119. Partitioning Device for Railway Cars.

(Cloison pour chars.)



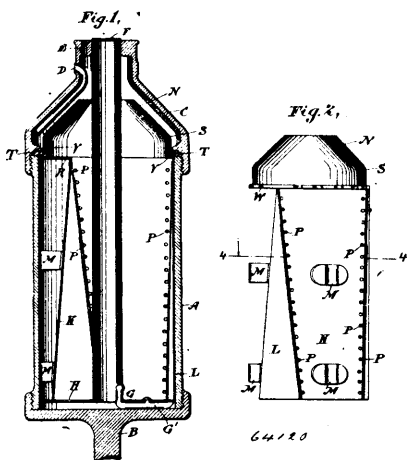
64119

William Henry Gunnere, South Bethelam, Pennsylvania, U.S.A., 30th September, 1899; 6 years. (Filed 28th June, 1899.)

Claim.—1st. A railroad car, provided in its interior with an overhead longitudinally extending track, and a transverse partition movable on said track and adapted to be locked to the car, substantially as shown and described. 2nd. A railroad bar, provided in its interior with a transverse partition arranged to be rolled on an overhead roller, substantially as shown and described. 3rd. A railroad car, provided in its interior with an overhead longitudinally extending track, a transverse partition movable on said track, and a fixed grate in the clear story of the car and in alignment with said partition, substantially as shown and described. 4th. A railroad car, provided in its interior with an overhead longitudinally extending track, a transverse partition movable on said track, a fixed grate in the clear story of the car and in alignment with said partition, and means for locking said partition in position in the car, as set forth. 5th. A railroad car, provided in its interior with a longitudinally movable transverse partition, and a plurality of fixed transverse grates in the clear story of the car, and locking devices for said partition to lock the latter in place in the car and

in alignment with one of said fixed grates, as set forth. 6th. A railroad car, provided in its interior with a transverse partition having an overhead roller, and means for rotating said roller to wind up or unwind the partition, as set forth. 7th. A railroad car, provided in its interior with an overhead longitudinally extending track, carriages mounted to travel on said track, a roller journaled in said carriages, and a flexible partition attached to said roller and adapted to be wound thereon and extended therefrom to the bottom of the car, to be locked thereto substantially as shown and described. 8th. A railroad car, provided in its interior with an overhead longitudinally extending track, a roller journaled in said carriages, a flexible partition attached to said roller and adapted to be wound thereon and extended therefrom to the bottom of the car, to be locked thereto, a plurality of fixed transverse grates in the clear story of the car, locking devices for locking said carriages to one of said grates, and locking devices for locking the lower end of the partition to the car at the time the partition is in alignment with one of said grates, as set forth.

**No. 64,120. Creaming Machine. (Cremeusc.)**



Olof Ohlsson, Stockholm, Sweden, 30th September, 1899; 6 years.  
(Filed 4th February, 1899.)

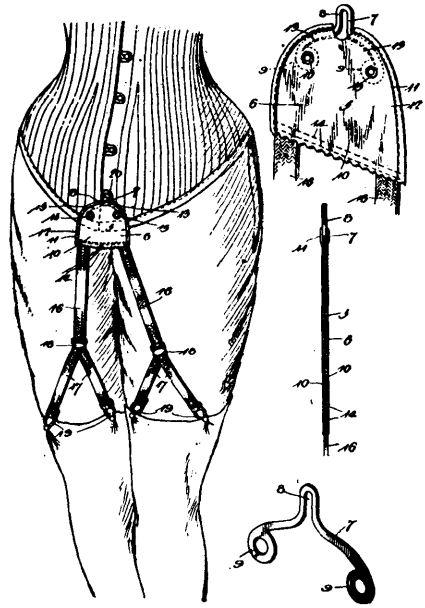
**Claim.**—1st. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, and suitable feed and discharge devices, of an internal frame within the bowl supported in place by the walls thereof, said frame having guiding plates or partitions arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of it from the body of liquid that is radially inside of it, one at least of said guiding plate or partition having its broad side facing the periphery of the bowl and separated therefrom, a substantial distance, so as to leave a skim milk space between said guiding plate and said periphery, having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl and also at the same time cuts the same radial lines of the bowl obliquely when viewed in a plane at right angles to the axis of the bowl. 2nd. In a centrifugal machine, the combination, substantially as described, with a bowl and means for rotating it, and suitable feed and discharge devices, a skimming device including as an element a guiding plate or partition arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of it from the body of liquid that is radially inside of it, said guiding plate or partition, said guiding plate having its broad side facing the periphery of the bowl and separated therefrom a substantial distance, so as to leave a skim milk space, between said guiding plate and said periphery, having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl and also at the same time cuts the same radial lines of the bowl obliquely when viewed in a plane at right angles to the axis of the bowl, and a feed device having an opening whereby it delivers the full milk at one end of the separating chamber inside of said portion of the guiding plate or partition and discharge devices having openings whereby they deliver the separated skim milk and cream

at the other end of the separating chamber. 4th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, of a skimming device including as an element a guiding plate or partition arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of it from the body of liquid that is radially inside of it, said guiding plate or partition having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl and also at the same time cuts the same radial lines of the bowl obliquely when viewed in a plane at right angles to the axis of the bowl and having openings for the skim milk along the edge (of said portion of the plate or partition) that is nearest to the periphery of the bowl, and a feed device, having an opening whereby it delivers the full milk at one end of the separating chamber inside of said portion of the guiding plate or partition and discharge devices having opening whereby they deliver separated skim milk and cream at the other end of the separating chamber. 5th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it of a removable internal frame having two or more guiding plates or partitions secured together and arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of them from the body of liquid that is radially inside of them, said guiding plates or partitions, said guiding plates having their broad sides facing the periphery of the bowl and separated therefrom a suitable distance, so as to leave a skim milk space between the guiding plates and the periphery having substantial portions which cut the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl and also at the same time cut the same radial lines of the bowl obliquely when viewed in a plane at right angles to the axis of the bowl, and a feed device having an opening whereby it delivers full milk on the inside of said internal frame and suitable discharge devices having an opening for the outflow of skim milk from outside the frame and an opening for the outflow of cream from inside the frame. 6th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it and suitable feed and discharge devices, of a removable internal frame having three or more guiding plates or partitions secured together and arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of them from the body of liquid that is radially inside of them, said frame encircling the axis of the bowl and each guiding plate or partition thereof, side plate or partition having its broad side facing the periphery of the bowl and separated therefrom, a substantial distance, so as to leave a skim milk space between the said guiding plate and said periphery having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl and also at the same time cuts the same radial lines of the bowl obliquely when viewed in a plane at right angles to the axis of the bowl. 7th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it and suitable feed and discharge devices, of a frame arranged in the liquid space of the bowl and having guiding plates extending horizontally from periphery to periphery of the bowl, and inclined vertically to the axis of the bowl. 8th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it and suitable feed and discharge devices, of a frame arranged in the liquid space of the bowl and having guiding plates extending horizontally from periphery to periphery of the bowl and inclined vertically to the axis of the bowl and provided with openings for the skim milk along their peripheral edges. 9th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, of a single frame arranged in the liquid space of the bowl and having guiding plates extending horizontally from periphery to periphery of the bowl and inclined vertically to the axis of the bowl and provided with openings for the skim milk along their peripheral edges, and a feed device having an opening whereby it delivers the full milk at one end of the separating chamber inside of the frame and discharge devices having openings whereby it delivers the separated skim milk and the cream at the other end of the separating chamber. 10th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it and suitable feed and discharge devices, of a frame arranged in the liquid space of the bowl and having sliding plates extending horizontally from periphery to periphery of the bowl and inclined vertically to the axis of the bowl and provided with openings for the skim milk along their peripheral edges, and having between said guiding plates connecting sections, connecting the guiding plates at their peripheral edges. 11th. The combination with a separator bowl having suitable feed and discharge devices, of a single frame or partition situated in the liquid space of the bowl and encircling the bowl axis, said frame or partition being composed of circumferentially alternate sections of the faces of the pyramid and sections peripherally connecting the same, the pyramid being concentric with the bowl and the faces of the pyramid being slightly inclined to the axis of the bowl, substantially as set forth. 12th. The combination with a separator bowl having suitable feed and discharge devices, of a single frame or partition situated in the liquid space of the bowl and encircling the bowl axis, said frame or partition being composed of circumferentially alternate sections of the faces of a pyramid and sections peripherally connecting the same, the pyramid being concentric with the bowl and the faces of the

pyramid being but slightly inclined to the axis of the bowl, the frame or partition having passages for the skim milk at or near the angles that are nearest to the periphery, substantially as set forth. 13th. The combination with a separator bowl having suitable feed and discharge devices, of a series of frames or partitions situated in the liquid space of the bowl and encircling the bowl axis, the frames or partitions being composed of circumferentially alternate sections of the faces of a pyramid and sections peripherally connecting the same, the pyramid being concentric with the bowl and the faces of the pyramid being but slightly inclined to the axis of the bowl, and substantially extending from top to bottom of the bowl, substantially as set forth. 14th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and a cover adapted to be screwed or otherwise secured to the bowl and a suitable rubber gasket and seat for same, the cover having a depending collar V, of an internal skimming device or frame having a suitable cover or top piece, said internal cover having the shoulder S, whereby the rubber gasket is readily and reliably forced to its proper seat and the parts are reliably secured together for use. 15th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, of an internal frame within the bowl supported in place by the walls of the bowl, said frame having guiding plates or partitions arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of it from the body of liquid that is radially inside of it, said guiding plates or partitions having their broadsides facing the periphery of the bowl and separated therefrom a substantial distance, so as to leave a skim milk space between said guiding plates and said periphery, having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl, and also at the same time cuts the same radial lines obliquely when viewed in a plane at right angles to the axis of the bowl, and suitable feed devices having an opening for the entrance of full milk within said internal frame, and suitable discharge devices having an opening for the outflow of skim milk from the said frame, and an opening for the outflow of cream from inside the frame. 16th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, of an internal frame within the bowl, having guiding plates or partitions arranged in the liquid space of the bowl and separating the body of liquid that is radially inside of it, said guiding plates or partitions having their broadsides facing the periphery of the bowl and separated therefrom a substantial distance, so as to leave a skim milk space between said guiding plates and said periphery, having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl, and also at the same time cuts the same radial lines obliquely when viewed in a plane at right angles to the axis of the bowl, and suitable feed devices having an opening for the entrance of full milk within said internal frame, and suitable discharge devices having an opening for the outflow of skim milk from outside the said frame and an opening for the outflow of cream from inside the said frame. 17th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, of an internal frame within the bowl, having plates or partitions arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of it from the body of liquid that is radially inside of it, said guiding plates or partitions having their broadsides facing the periphery of the bowl and separated therefrom a substantial distance, so as to leave a skim milk space between said guiding plates and said periphery, having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl, and also at the same time cuts the same radial lines obliquely when viewed in a plane at right angles to the axis of the bowl, and a suitable feed device comprising a central tube having one or more openings for the entrance of the full milk into the space between said tube and the said guiding plates, and suitable discharge devices having openings for the outflow of skim milk from the skim milk space between the periphery of the bowl and said guiding plates and having openings for the outflow of cream. 18th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it, of an internal frame within the bowl supported in place by the walls of the bowl, said frame having guiding plates or partitions arranged in the liquid space of the bowl and separating the body of liquid that is radially outside of it from the body of liquid that is radially inside of it, said guiding plates or partitions, having their broad sides facing the periphery of the bowl and separated therefrom a substantial distance, so as to leave a skim milk space between said guiding plates and said periphery, having a substantial portion which cuts the radial lines of the bowl obliquely when viewed in a plane containing the axis of the bowl and also at the same time cuts the same radial lines obliquely when viewed in a plane at right angles to the axis of the bowl, and a suitable feed device comprising a central tube having one or more openings for the entrance of the full milk into the space between said tube and the said guiding plates, and suitable discharge devices having openings for the outflow of skim milk from the skim milk spaces between the periphery of the bowl and said guiding plates and the outflow of cream. 19th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it and suitable feed and discharge devices, of a frame arranged in the liquid space

of the bowl and having guiding plates extending horizontally from periphery to periphery of the bowl and inclined vertically to the axis of the bowl. 20th. In a centrifugal creaming machine, the combination, substantially as described, with a bowl and means for rotating it and suitable feed and discharge devices, of an integral frame arranged in the liquid space of the bowl and having guiding plates extending horizontally from periphery to periphery of the bowl and inclined vertically to the axis of the bowl.

**No. 64,121. Hose Supporter. (Support de bas.)**



64121

Reddin West Parramore, New York City, New York, U.S.A.,  
30th September, 1899; 6 years. (Filed 3rd July, 1899.)

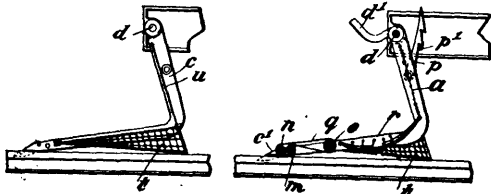
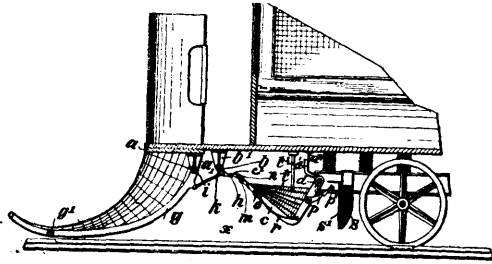
*Claim.*—1st. A stocking supporter consisting of the duplicate suspension tapes or elastics, and a single hanger to which the upper ends of the tapes or elastics are connected, said hanger being provided with an eye or loop adapted to be detachably engaged with the stud of a corset clasp, substantially as described. 2nd. A stocking supporter consisting of the duplicate stocking engaged members, and means for permanently uniting the two members at their upper ends, said means being in the form of a hanger piece which is adapted to be engaged with the corset at the point where the sections of the corset meet, substantially as described. 3rd. In a stocking supporter, a means for connecting the suspension tapes or elastics to a corset consisting of a fabric body and a metallic hanger piece, which is united to said body, said hanger piece having a central loop or eye which is prolonged or extended beyond the fabric body, and is adapted to be held on the stud of a corset clasp by the eye thereof, for the purpose described, substantially as set forth. 4th. A stocking supporter consisting of a hanger having the metallic hanger plate provided with a central loop or eye and the ears at the ends of said plate and the fabric body having its layers united to the hanger plate to enclose the latter, the eyelets secured to the ears of the hanger plate and to the layers of said body, the suspension elastics united to fabric body at the edge opposite the hanger plate, and the connecting tapes or elastics connected adjustably to the suspension elastics and provided with the clasps, substantially as described.

**No. 64,122. Car Fender. (Defense de chars.)**

Wilhelm Mattes, 23 Gr. Rosentrassse, Altona, Germany, 30th September, 1899; 6 years. (Filed 3rd July, 1899.)

*Claim.*—1st. A duplex fender or construction remover for attachment to tramscars consisting of a forward safety guard in combination with a rear safety catcher, the whole being arranged so that the forward guard when in its normal position causes a trigger to keep the rear catcher raised out of action, the latter remaining unaffected by any body falling upon the forward guard, but falling into working position automatically upon said forward guard passing and rising over any obstruction, said obstruction being drawn into the rear catcher, the arms of which meanwhile act as a retarding brake, substantially as described. 2nd. A duplex fender or obstruction remover for attachment to tramscars consisting of a forward safety guard in combination with a rear safety catcher, the latter being normally held up clear of the track by a trigger operated automatically from the forward guard, and having two pivotted side arms with short

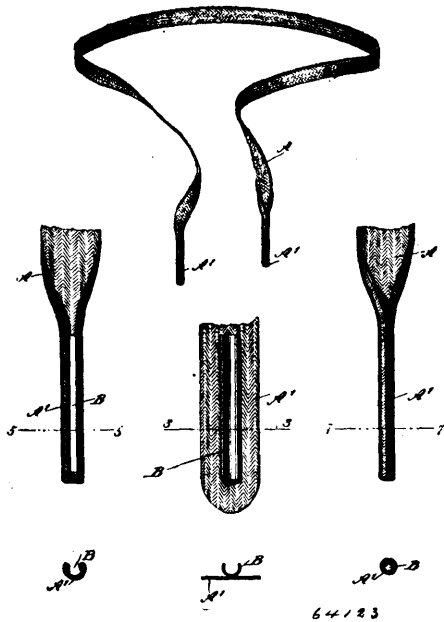
hinged extremities capable of dropping within the groove of the rail for the purpose of braking the car, and an endless band passing over



64122

two rollers and being rotated by the friction of one of said rollers against the ground, and the means of operating the side nets, the stop mechanism, and the sand box for the purpose and substantially in the manner hereinbefore described.

No. 64,123. Lacings. (Lacets.)

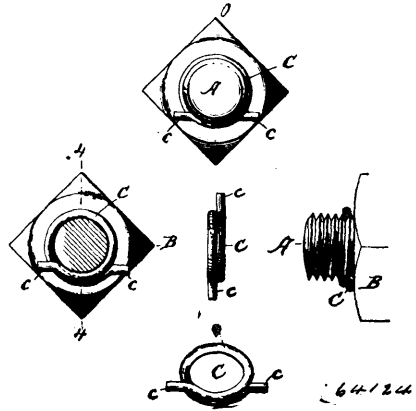
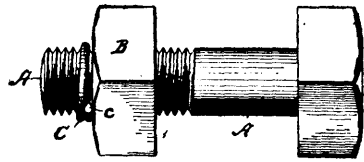


64123

Peleg James Congdon, Arlington, Rhode Island, U.S.A., 30th September, 1899; 6 years. (Filed 29th June, 1899.)

Claim.—1st. The combination, with a lacing, of a stiffener in the form of a split tube, the tube being located at the end of the lacing and clamping a side edge thereof in its split, as and for the purpose described. 2nd. The combination, with a lacing, of a stiffener in the form of a split tube, the said tube clamping a side edge of the lacing in its split and having the lacing rolled around it whereby the tube is held enclosed in the lacing to form a stiffened tip, as and for the purpose described. 3rd. The combination with a lacing, of a split tube laid longitudinally on the lacing at the end thereof, the said tube clamping both side edges of the lacing in its split whereby the tube will be securely enclosed in lacing when the split is closed or pressed together and form a stiffened tip, as described. 4th. The combination with a lacing, of a stiffener in the form of a split tube, the said tube being located at the end of the lacing, which latter has its side edges clamped in the split and its extreme outer end inserted in the end of the tube, whereby the tube will be securely enclosed in the end of the lacing when the split is closed and form a stiffened tip, as described.

No. 64,124. Nut Lock. (Arrête écrou.)

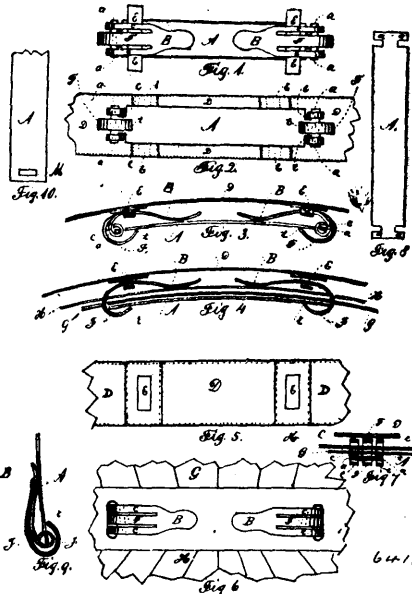


64124

William H. Carruthers, Chicago, Illinois, U.S.A., 30th September, 1889; 6 years. (Filed 29th June, 1899.)

Claim.—1st. A nut lock comprising a ring which is adapted to fit between the threads of a bolt, the ends of said ring overlapping each other, substantially as described. 2nd. A nut lock comprising a coiled piece of spring metal whose ends overlaps each other a short distance, said ends bent outwardly, substantially as described. 3rd. The herein described nut lock comprising a ring whose ends overlap each other in partial convolution, the cross section of said ring being such that, when in position, and crowded by the nut, the advance end of the ring will engage and more firmly seat its overlapping companion. 4th. The combination with a bolt having a nut threaded thereon, of a nut lock consisting of a spiral spring ring having overlapping ends and made of a diameter normally less than that of the threaded bolt whereby it obtains a spring grip upon the bolt between the thread when placed thereon.

No. 64,125. Waist or Blouse and Skirt and Belt Connector. (Corset et jupe et attache de ceinture.)



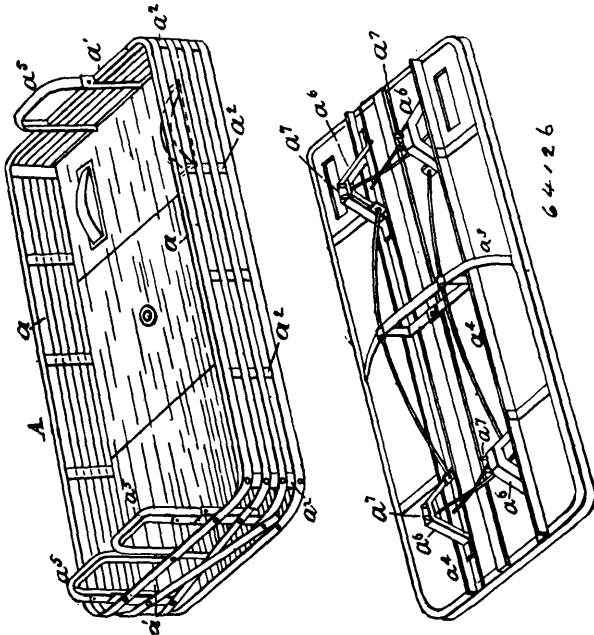
64125

Mary Lang, Port Hope, Ontario, Canada, 30th September, 1899; 6 years. (Filed 30th May, 1899.)

Claim.—1st. In combination in a waist or blouse and skirt connector, a bar, having two levers, hinged, one at or near one extremity of the bar, and the other, at or near the other extremity, and which levers are to pass through and connect the blouse and skirt

and each have a spring to hold it in position, substantially as described. 2nd. In combination in a waist or blouse and skirt connector, a bar, having two levers, hinged one at or near one extremity of the bar and the other at or near the other extremity, with a belt having two loops which pass over the said levers, in the manner and for the purpose substantially as described. 3rd. In combination in a waist or blouse and shirt and belt connector a plurality of levers hinged to a bar with a belt having a plurality of loops corresponding to the numbers of levers, a loop for each lever, constructed in the manner and for the purpose substantially as set forth.

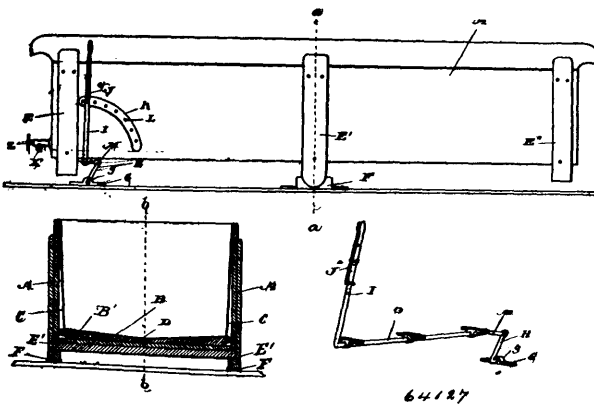
**No. 64,126. Hay Rack. (Ratelier à foin.)**



Samuel Desoe, Willow City, North Dakota, U.S.A., 30th September, 1899; 6 years. (Filed 6th June, 1899.)

*Claim.*—A rack or vehicle body having the sides, ends and bottom formed of rails with open spaces between them and provided on the under side of bottom with the axle bearing, angle bars *a*<sup>n</sup>, whereby said body will be light, easily lifted on and off the running gear, adapted to different purposes and withal inexpensive.

**No. 64,127. Milk Vat. (Vaisseau à lait.)**



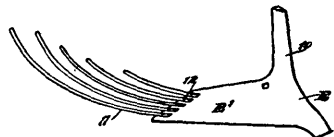
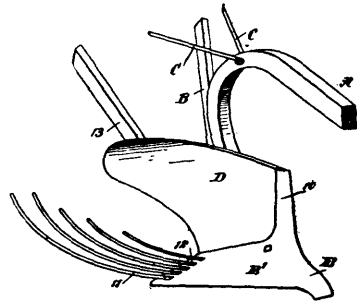
Arthur Orphiel Brunette, Gananoque, Ontario, Canada, 30th September, 1899; 6 years. (Filed 7th June, 1899.)

*Claim.*—1st. A milk vat embracing in its construction a milk holding vessel, having a bottom sloping from the lower edge of each of the opposite sides to the middle to form a longitudinal channel, and a valve fitted into one end of the milk holding vessel opposed to the channel, substantially as specified. 2nd. A milk vat embracing in its construction a milk holding vessel, having a bottom sloping from the lower edge of each of the opposite sides to the middle to form a longitudinal channel, a valve fitted into one end of the milk holding vessel opposed to the channel, consisting of a valve to close the passageway therethrough, substantially as specified. 3rd. A milk vat embracing in its construction a milk holding vessel, having a bottom sloping from the lower edge of each of the

opposite sides to the middle to form a longitudinal channel, a valve fitted into one end of the milk holding vessel opposed to the channel, consisting of a valve casing and valve to close the passageway therethrough, a series of legs for the vat, the lower end of each of the middle legs rounded, and a rounded bearing for the lower end of each of the middle legs, substantially as specified. 4th. A milk vat embracing in its construction a milk holding vessel, having a bottom sloping from the lower edge of each of the opposite sides to the middle to form a longitudinal channel, a valve fitted into one end of the milk holding vessel opposed to the channel, consisting of a valve casing and valve to close the passageway therethrough, a series of legs for the vat the lower end of each of the middle legs rounded, a rounded bearing for the lower end of each of the middle legs, a rattling and lowering device for the end of the vat, a lever pivoted to the link, cross bars connecting the links and levers at the opposite side of the vat, and quadrants to hold the levers in any adjusted position, substantially as specified. 5th. A milk vat embracing in its construction a frame, a milk holding vessel within the frame having a bottom sloping from the lower edge of each of the opposite sides to the middle to form a longitudinal channel, a rack mounted upon the frame to support the bottom of the milk holding vessel, inclined evenly from each of the opposite sides to the middle, corresponding in shape and inclination with the shape and inclination of the bottom of the milk holding vessel, a valve fitted into one end of the milk holding vessel opposed to the channel consisting of a valve casing and valve to close the passageway therethrough, substantially as specified.

**No. 64,128. Plough for Potato Digging.**

(Charrue pour arracher les patates.)



Oliver Cromwell Campbell, Union City, Michigan, U.S.A., 30th September, 1899; 6 years. (Filed 28th June, 1899.)

*Claim.*—1st. The combination of the mould board, the share attached to the front portion of the mould board and projecting to the side thereof, and the tines extending longitudinally at the side of the rear portion of the mould board and secured with their front ends to the rear portion of the share. 2nd. The combination of the mould board, the share attached to the front portion of the mould board and projecting to the side thereof, and the tines extending longitudinally at the side of the rear portion of the share, said tines increasing in length from the mould board outwardly. 3rd. The combination of the mould board, the share attached to the front portion of the mould board and projecting to the side thereof, said share being inclined downward in a transverse direction from the mould board outward and the tines extending longitudinally at the side of the rear portion of the mould board and secured with their front ends to the rear portion of the share, the tines being arranged at different heights, with the highest tine adjacent to the mould board.

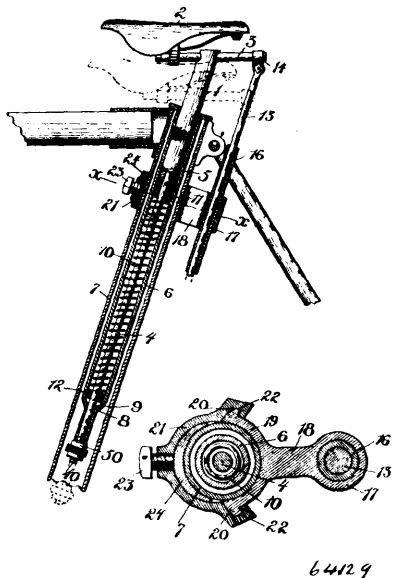
**No. 64,129. Spring Seat for Vehicles.**

(Siège à ressort pour bicyclet.)

Albert H. Holland, Buffalo, New York, U.S.A., 30th September, 1899; 6 years. (Filed 26th June, 1899.)

*Claim.*—1st. A spring seat post for vehicles, consisting of a tubular casing removably secured within the frame tubing of the vehicle, a seat bar within the casing, and a spiral spring between the bar and casing, a clip secured to the frame tubing of the vehicle and pro-

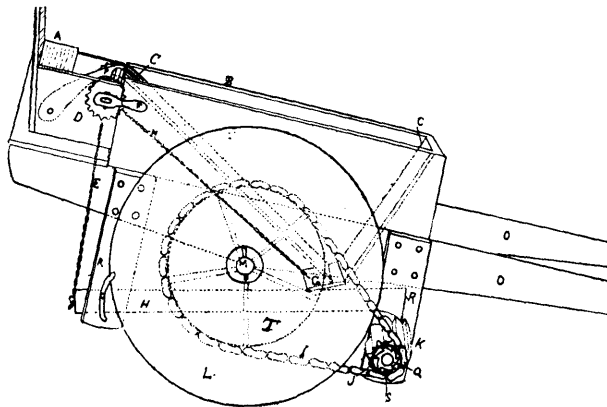
vided with a socket in its rear end, and a keeper secured to the rear end of the seat bar and passing through the socket, substantially as



64129

described. 2nd. A spring seat post for vehicles, consisting of a tubular casing within the frame tubing of the vehicle and having a contracted lower end, a seat bar whose body is mounted in the upper end of the casing and has a reduced extension moving through the contracted portion of the casing, a spring surrounding the larger part of the seat bar and the contracted end of the casing, a spring surrounding the reduced portion between the larger part of the seat bar and the contracted end of the casing, a keeper connected with the seat bar and standing parallel therewith, and a clip secured to the frame tubing of the vehicle and provided with a socket through which said keeper moves, substantially as described. 3rd. A spring seat post for vehicles, consisting of a tubular casing within the frame tubing of the vehicle and having a shoulder at its lower end, a seat bar whose body is mounted in the upper end of the casing and has a reduced extension, a spring surrounding the reduced portion between the larger part of the seat bar and the shoulder at the lower end of the casing, washers at the ends of said spring, a keeper connected with the seat bar and standing parallel therewith, and a clip secured to the frame tubing of the vehicle and provided with a socket through which said keeper moves, substantially as described. 4th. A spring seat post for vehicles, consisting of a tubular casing removably secured within the frame tubing of the vehicle, a seat bar within the casing, and a spiral spring between the bar and casing, a keeper secured to the rear end of the seat bar, a socket standing parallel with the seat bar and through which the keeper passes, and a clip attached to the vehicle frame and having a tubular opening removably receiving said socket, substantially as described.

**No. 64,130. Sand Sprinkling Machine.**  
(Machine à saupoudrer le sable.)



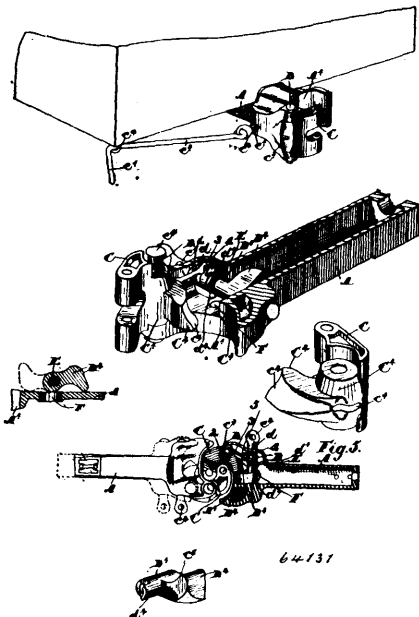
64130

Hugh Sparks, Hintonburgh, Ontario, Canada, 30th September, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—1st. In a sand distributor, the inclined, adjustable, vibrating board, as shown and described for the purpose set forth. 2nd.

In combination with the adjustable vibrating board, the regulating lever, chain roller and chains, as shown and described for the purpose set forth. 3rd. In combination with the adjustable vibrating board the vibrating roller provided with a sprocket wheel and spring driven by the sprocket T, fastened to the wheel L, on the axle M, as shown and described for the purpose set forth. 4th. The combination with the adjustable vibrating board, the sand hopper provided with a valve regulated by the chain from and by the roller and lever, and ratchet and pawl, as shown and described for the purpose set forth.

**No. 64,131. Car Coupler.** (Attelage de chars.)



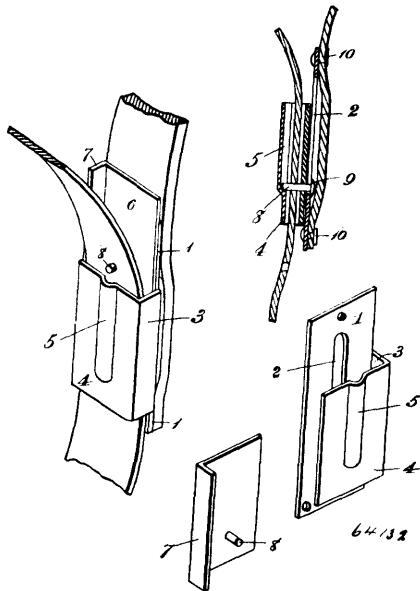
James Douglas Storie, Oshawa, Ontario, Canada, 30th September, 1899; 6 years. (Filed 21st June, 1899.)

Claim.—1st. In a car coupler, the combination with the draw head provided with a substantially U-shaped end and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off-set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, and means for locking the off-set in position immediately upon it being thrown back flush with the front of the draw head, as and for the purpose specified. 2nd. In a car coupler, the combination with the draw head provided with a substantially T-shaped end and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off-set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, means for locking the off-set in position immediately upon it being thrown back flush with the front of the draw head and means for releasing the off-set and throwing the knuckle open immediately thereafter, as and for the purpose specified. 3rd. In a car coupler, the combination with the draw head provided with a substantially T-shaped end and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off-set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, an arm suitably pivoted in the draw head and designed to be swung longitudinally to abutt the face or end of the off-set when the knuckle is in the closed position, as and for the purpose specified. 4th. In a car coupler, the combination with the draw head provided with a substantially U-shaped end and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off-set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, an arm suitably pivoted in the draw head and designed to be swung longitudinally to abutt the face or end of the off-set when the knuckle is in a closed position and a connection between the hub of the knuckle and the arm whereby the knuckle and arm are simultaneously operated to lock the knuckle or release it, as and for the purpose specified. 5th. In a car coupler, the combination with the draw head provided with a substantially U-shaped end and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off-set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, an arm located in the mouth of the draw head, a pin extending through the sleeve of the arm, which is provided with a longitudinal projection, a sleeve loosely journalled on the arm provided with a longitudinal projection designed to engage with the projection on the sleeve of the arm, a connection between the loose sleeve and the knuckle, and means for turning



the pin, as and for the purpose specified. 6th. In a car coupler, the combination with the draw head, provided with a substantially U-shaped end and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, an arm located in the mouth of the draw head, a pin extending through the sleeve of the arm, and to which it is secured, having a longitudinal projection, a sleeve loosely journalled on the arm, provided with a longitudinal projection designed to engage with the projection on the sleeve of the arm and the lugs, a link extending through a slot in the knuckle and held in position by the pivot pin thereof and the rod connecting the link to the lugs, and means for turning the pin, as and for the purpose specified. 7th. The combination with the hollow draw head knuckle provided with an off-set, of the arm pivoted on a pin extending across the draw head and designed to abutt the off-set of the knuckle when the draw head is closed, and an opening in the bottom of the head whereby it may be manipulated to release the knuckle, as and for the purpose specified. 8th. In a car coupler, the combination with the draw head, provided with a substantially U-shaped end, and the open mouth of the draw head provided with an inclined overhanging side, and the knuckle journalled on a pin extending through the apexes of one of the sides, of an off-set extending laterally from the knuckle and designed when the knuckle is open to lie in the path of the outer end of the opposing knuckle, an arm suitably pivoted in the draw head and designed to be swung longitudinally to abutt the face or end of the off-set when the knuckle is in the closed position, as and for the purpose specified. 9th. In a car coupler, in combination the knuckle and pin connecting it to the draw head, a slot in the hub of the knuckle, a link extending through the slot and through which the pin of the knuckle extends, and means connected to the link whereby the knuckle may be operated, as and for the purpose specified. 10th. In a car coupler, the combination with the knuckle and pin connecting it to the draw head, a slot in the hub of the knuckle, a link extending through the slot and through which the pin of the knuckle extends, a pin extending through the draw head, an arm secured in the end of the pin and abutting the off-set in the knuckle and having a longitudinal projection, a sleeve loosely journalled on the pin extending through the draw head, a connection between such sleeve and the link held in the knuckle, and a longitudinal projection from the sleeve extending in the path of the longitudinal projection of the sleeve of the arm, such projections being separated by sufficient space to permit of a lost motion, as and for the purpose specified.

**No. 64,132. Harness Buckle.** (*Boucle de harnais.*)

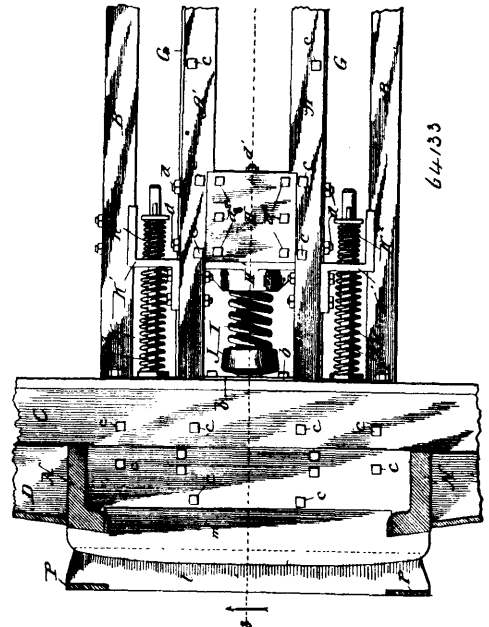


George E. Lawrence, Creston, Iowa, U.S.A., 30th September, 1899; 6 years. (Filed 19th June, 1899.)

*Claim.*—1st. As an improvement in buckles, the combination of a fixed casing having an open side and a movable plate having a flange to cover said open side and also a retaining stud, as set forth. 2nd. A buckle consisting of a fixed casing, having an open side and a central vertical groove in its rear part, and a movable plate having a flange to cover said open side, and a retaining stud working in said vertical groove, as set forth. 3rd. A buckle composed of a fixed member, having an open side, and a vertical groove respectively in its front and rear parts, and a movable plate having a flange to cover said open side, and a fastening stud working in said groove, as set forth. 4th. A buckle composed of a fixed casing,

having a partial vertical groove in its front and rear parts respectively, and a movable plate having a fastening pin working in each of said grooves and resting on shoulders formed in the bottom of said grooves, as set forth. 5th. A buckle composed of a fixed casing having a vertical groove in its front and rear parts respectively, and a movable plate having a fastening device working in said grooves, as set forth. 6th. A buckle composed of a fixed casing, having an open side and a movable plate having a flange to cover said side, and carrying means to hold a tug in place, as set forth.

**No. 64,133. Car Construction.** (*Construction de chars.*)

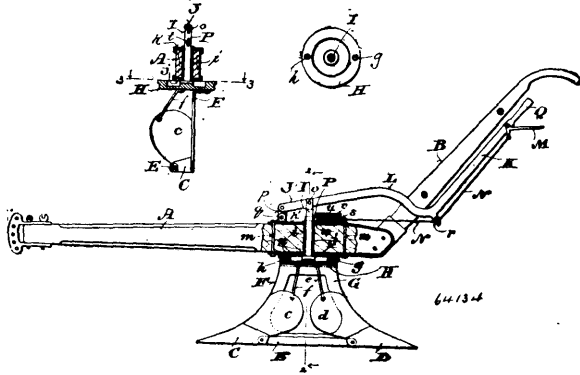


Henry Howard Sessions, Chicago, Illinois, U.S.A., 30th September, 1899; 6 years. (Filed 19th June, 1899.)

*Claim.*—1st. In a car, the combination with the longitudinally extending sills and an end sill of a car body, of a suitably supported movable buffer plate, a centre buffer stem engaging the buffer plate at its front end, a main or centre buffer spring located back of said end sill, means for attaching said spring to the frame-work of the car body, and means on the rear end of said buffer stem for engaging said spring, substantially as and for the purpose set forth. 2nd. In a car, the combination with the longitudinally extending sills and an end sill of the car body, of a suitably supported movable buffer plate, a centre buffer stem extending back of said end sill, a centre or main buffer spring at the rear end of said stem, and means for attaching said spring to said longitudinally extending sills, independently of the end sill, substantially as and for the purpose set forth. 3rd. In a car, the combination with two longitudinally extending centre sills and an end sill of the frame-work, of a suitably supported buffer plate, a centre buffer stem extending through said end sill, a main buffer spring connected to the rear end of said stem, and a transversely extending block or the like attached to said centre sills and connected with the rear end of said spring, substantially as and for the purpose set forth. 4th. In a car, the combination with the longitudinally extending sills, end sill and buffer beam, of a movable buffer plate, spring held side stems attached thereto, a centre buffer stem extending from the buffer plate through the buffer beam and end sill, and equipped at its rear end with a spring engaging head, a centre buffer spring back of said end sill held at one end by said head, and a transversely extending block supported by said sills and provided on its front face with a metallic spring engaging plate which supports the rear end of said spring, substantially as and for the purpose set forth. 5th. In a car, the combination with the frame-work, of a buffering mechanism, comprising a buffer plate, spring held side buffer stems supporting said plate at its ends, said stems having heads or swivels forming the stems T's, and attaching plates secured to the buffer plate provided with openings for the buffer stems, and on their sides adjacent to the buffer plate and above and below said openings with vertically extending channels affording bearings for said head or swivels, substantially as and for the purpose set forth. 6th. In a car, the combination with the longitudinally extending sills and buffer beam, of a buffer plate, a buffer stem pivotally attached to the plate near one end moving in a close fitting perforation through said buffer beam, and a second buffer stem pivotally secured to said buffer plate toward its opposite end, and moving in a perforation through said buffer beam which is enlarged to permit inward swinging of said last-named stem when the buffer plate departs from a right angle, substantially as and for the purpose set forth.



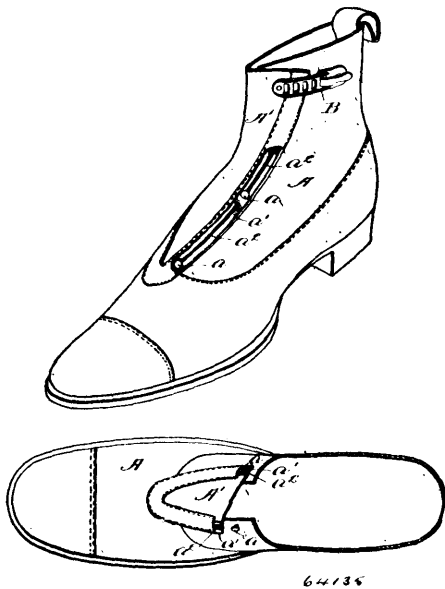
**No. 64,134. Plough. (Charrue.)**



Emil Bruesewitz, Milwaukee, Wisconsin, U.S.A., 30th September, 1899; 6 years. (Filed 19th June, 1899.)

*Claim.*—1st. In a plough, the combination of shares and their mould boards, secured back to back and pointing in opposite directions; a vertically movable and revoluble beam, and means for elevating and turning said beam, and for holding it in line with the projection of either share. 2nd. In a plough, the combination of a double landside, a horizontal turn table, a pair of shares and their mould board secured back to back and pointing in opposite directions, a post rising from said turn table, a beam vertically movable and revoluble on said post, a lever for raising said beam, and means for locking the beam in its adjusted position. 3rd. In a plough, the combination of a double landside, a horizontal turn table having a central post rising therefrom and sockets on opposite sides of said post, a pair of shares and their mould boards secured back to back and pointing in opposite directions, a beam vertically movable and revoluble on said post and having a pin depending from its underside for engagement with one or the other of the sockets in the turn table, and a lever for raising said beam. 4th. In a plough, the combination of a double landside, a horizontal turn table having a central slotted and forked post rising therefrom, and sockets in opposite sides of said post, a pair of shares and their mould boards secured back to back to said landsides and turn table and pointing in opposite directions, a beam revoluble on said post and having a depending pin for engagement with said sockets, a lever pivoted in said post fork, the forward end of said levers being linked to said beam, and the rear end of the lever projecting back of the plough handles, a spring controlled bolt for engagement with the slot in the post, a bell crank pivoted to the handle end of said lever, and a cord connecting said bell crank and said bolt.

**No. 64,135. Shoe. (Chaussure.)**

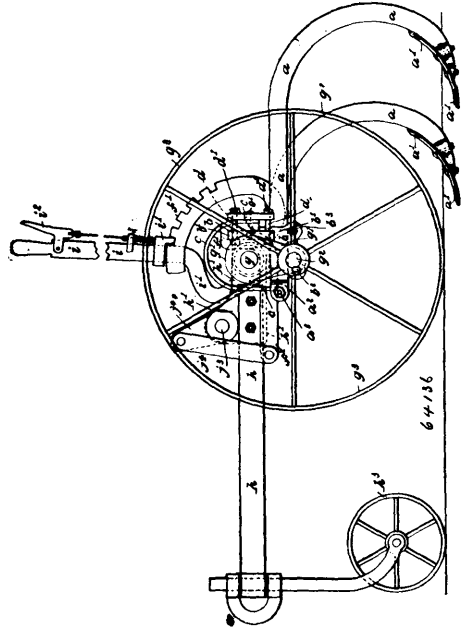


Derila Harvey, St. André de Kamouraska, Quebec, Canada, 30th September, 1899; 6 years (Filed 13th June, 1899.)

*Claim.*—1st. The combination with a shoe, of a tongue adjustably connected therewith and a fastening device for securing the tongue in its adjusted position, substantially as described. 2nd. The com-

bination with a shoe, a series of studs secured upon each side of the opening thereof, of an adjustable tongue having a series of longitudinal slots engaging said studs and a fastening device for securing the tongue in its adjusted position, substantially as described. 3rd. The combination with a shoe, a series of studs secured upon each side of the opening thereof, of an adjustable tongue having tapering edges, a metal strip secured to each of said edges, and inclined to correspond with said edges, said strips having a series of longitudinal slots corresponding in number with the number of said studs and engaging therewith, and a fastening device for securing the tongue in its adjusted position, substantially as described.

**No. 64,136. Land Cultivating Implement. (Cultivateur.)**

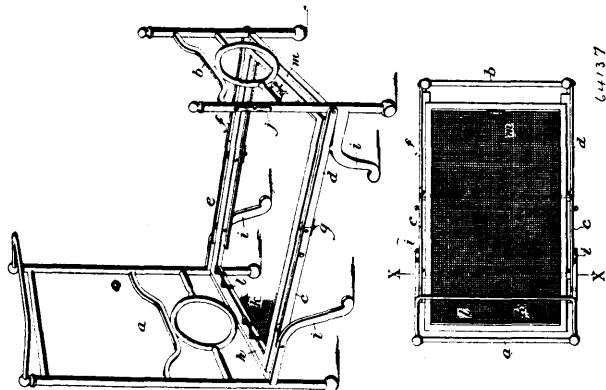


William Edward Martin, Abbot's Ripton, Huntingdon, England, 30th September, 1899; 6 years. (Filed 28th June, 1899.)

*Claim.*—1st. In a cultivator, the combination of tines and guide blocks in which the tine shanks are capable of horizontal and slightly angular motion, substantially as herein shown and described. 2nd. In a cultivator, the combination of tines having the points of their shares perpendicularly below the centre from which the curve of the working part of the tine is struck, or thereabouts, means for adjusting the working depth of the tines and keeping them at all depths in a horizontal plane, and means for tilting the tines entirely out of the ground when required, substantially as herein described and illustrated in the accompanying drawings. 3rd. In a cultivator, the combination of tines having the points of their shares perpendicularly below the centre from which the curve of the working part of the tine is struck, or thereabouts, guide blocks in which the tine shanks are capable of horizontal and slightly angular motion, springs acting in a horizontal direction on the tines, means for adjusting the working depth of the tines and keeping them at all depths in a horizontal plane, and means for tilting the tines entirely out of the ground when required, substantially as herein described and illustrated in the accompanying drawings. 4th. In a cultivator, the combination of tines, guide blocks in which such tines are mounted with capability of horizontal and slightly angular motion, springs acting upon said tines, a bar or bars carrying such guide blocks and springs, a shaft carried by the machine frame and from which such bar or bars are supported, cranks fixed on the ends of the said shaft, pins on said cranks on which the carrying wheels are mounted, a hand lever fixed on said shaft to enable the angle of the cranks, and consequently the working depth of the tines, to be adjusted, and a notched quadrant to receive the spring pawl and thereby retain the parts in any required position, substantially as herein set forth. 5th. In a cultivator, the combination of tines acted upon by springs and capable of short horizontal motion, a bar or frame carrying such tines, a shaft carried by the machine frame from which such bar or frame is suspended, and means for enabling the tine bar or frame to be tilted around said shaft to enable the tines to be raised entirely out of the ground or lowered into working position, substantially as herein described and illustrated in the accompanying drawings. 6th. In a cultivator, the combination of tines having the points perpendicularly below the centre from which the curve of the working part of the tine is struck, or thereabouts, a bar or bars carrying such tines, a shaft carried by the machine frame and from which such bar or bars is or are supported, cranks fixed on the ends of the said shaft, pins on said cranks on which the carrying wheels are

mounted, a hand lever fixed on said shaft to enable the angle of the cranks, and consequently the working depth of the tines, to be adjusted at all depths in a horizontal plane, and a notched quadrant to receive the spring pawl and thereby retain the parts in any required position, substantially as herein set forth. 7th. In a cultivator, the combination of tines having the points of their shares perpendicularly below the centre from which the curve of the working part of the tine is struck, or thereabouts, a bar or frame carrying such tines, a shaft carried by the machine frame and from which such bar or frame is supported, and means for enabling the tine bar or frame to be tilted around said shaft to enable the tines to be raised entirely out of the ground or lowered into working position, substantially as herein shown and described.

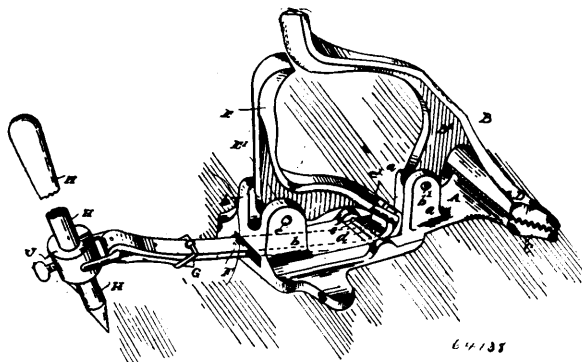
**No. 64,137. Folding Bedstead. (Lit pliant.)**



James Welsh Pepper, Philadelphia, Pennsylvania, U.S.A., 30th September, 1899; 6 years. (Filed 21st June, 1899.)

*Claim.*—1st. A folding bedstead having upright head and foot members, side rails pivotally connected therewith formed of sections jointed to each other, a bed bottom secured to one pair of sections with its free end extending approximately the length of the other pair of sections and means for supporting said free end, substantially as described. 2nd. A folding bedstead having upright head and foot members, each provided with bases so shaped and disposed as to maintain it in a vertical position independently of any support from the side rails, side rails pivotally connected therewith formed of sections jointed to each other, a bed bottom secured to one pair of sections with its free end extending approximately the length of the other pair of sections and means for supporting said free end, substantially as described. 3rd. A folding bedstead having upright head and foot members, side rails pivotally connected therewith formed of sections jointed to each other, a bed bottom secured to one pair of sections with its free end extending approximately the length of the other pair of sections and provided with guards as means for maintaining the mattress in place, the guard at the foot end of the bottom adapted to serve as a handle for the manipulation of the bedstead, substantially as described.

**No. 64,138. Carpet Stretcher. (Tendeur de tapis.)**

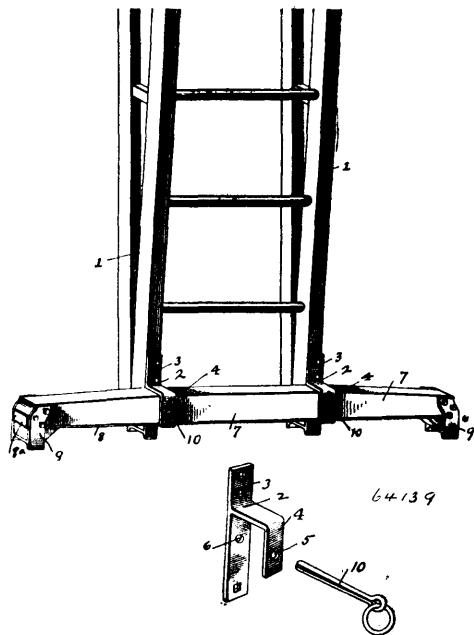


Lewis M. Lownes, Morristown, Pennsylvania, U.S.A., 30th September, 1899; 6 years. (Filed 21st February, 1899.)

*Claim.*—1st. A carpet stretcher, comprising a pair of clamping jaws, the lower one having two sets of lugs, and an aperture or slot therethrough, the top curved member having a depending lug pivoted between the front set of lugs, a third member with an upwardly curved arm pivoted between the rear set of lugs and formed with loop at its front end, and an adjustable strap, billet or chain, secured to the loop and passed through the slot and underneath the base or lower member to the rear thereof, substantially as described. 2nd. A carpet stretcher, comprising a pair of clamping jaws, the lower one having two sets of lugs and an aperture or slot

therethrough, the top curved member having a depending lug pivoted between the front set of lugs, a third member with an upwardly curved arm pivoted between the rear set of lugs and formed with a loop at its front end, and an adjustable strap, billet or chain secured to the loop and passed through the slot and underneath the base or lower member to the rear thereof in combination with the rod or lever, with a handle at the top, a sharpened or attenuated point and a vertically adjustable ring and loop thereon, substantially as described.

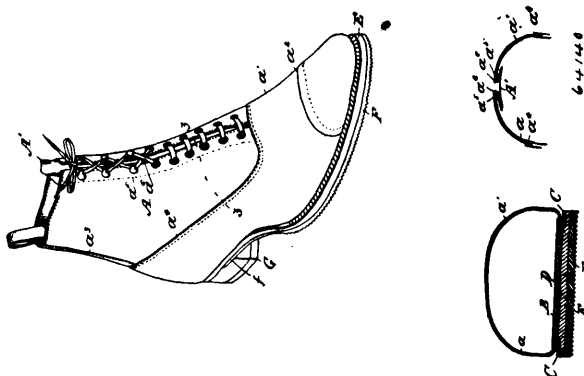
**No. 64,139. Ladder Base. (Basse d'échelle.)**



Frederick Scott Seagrave, Columbus, Ohio, U.S.A., 30th September, 1899; 6 years. (Filed 22nd March, 1899.)

*Claim.*—1st. In a base attachment for ladders, the combination with a ladder frame, of a base or beam of greater length than the width of said ladder and means for detachably securing said base to said ladder in a transverse position, substantially as specified. 2nd. In a base attachment for ladders, the combination with a ladder frame and attaching brackets projecting therefrom, of a base beam adapted to be detachably supported in said brackets, said base beam being of greater length than the width of the ladder and having downwardly projecting feet at its ends, substantially as specified.

**No. 64,140. Waterproof Boot and Shoe. ((Chaussure impermeable.))**

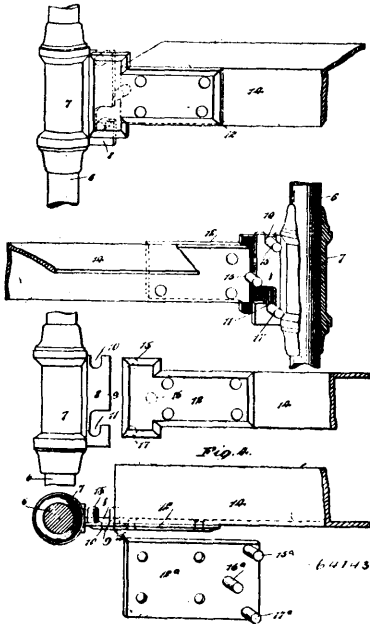


Frederick Alexander Kells, Ottawa, Ontario, Canada, 30th September, 1899; 6 years. (Filed 9th May, 1899.)

*Claim.*—1st. A waterproof boot, consisting of a suitable upper lining surfaced with rubber fabric having any seams or joints therein cemented with waterproof cement and an intermediate layer or sole of waterproof material between the insole and outsole and extending into the seam or joint uniting the upper to the welt, substantially as set forth. 2nd. A waterproof boot, consisting of a suitable upper lining surfaced with rubber fabric having any seams or joints therein cemented with water proof cement, an intermediate layer or sole of waterproof material between the insole and outsole and extending

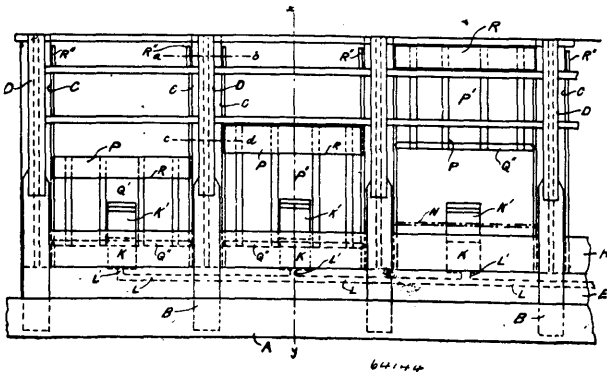


apart and firmly bound together, as set forth. 2nd. A bedstead fastening, comprising two sections having interlocking connection



with each other at two points, one above the other, and having intermediate of the said interlocking points abutting surfaces, one of the said surfaces being inclined downwardly and outwardly from the part of the bedstead to which the section is attached, substantially as and for the purpose set forth. 3rd. A bedstead fastening, comprising two sections overlapping each other and having interlocking engagement at the top and bottom, one section having its outer edge inclined downwardly and outwardly from the part of the bedstead to which the section is attached, and the other section provided with a laterally projecting abutment engaging the said inclined edge when the sections are in interlocked engagement, substantially as described. 4th. A bedstead fastening, comprising a post section and a rail section, the post section being provided with a hook at each end and with a wedge like surface intermediate of the hooks, the said wedge like surface being inclined from its upper to its lower end in a direction away from the post, and the other section provided with pins for engaging the hooks, and with an abutment intermediate of the pins for engaging the wedge like surface, substantially as described. 5th. A bedstead fastening, consisting of a post plate formed with two recesses producing hooks and having its edge intermediate of the hooks inclined downwardly and away from the post, and a rail section overlapping the post plate and provided with three laterally projecting pins, two of the pins engaging the hooks of the post plate, and the third pin engaging the inclined edge of the said post plate, substantially as described. 6th. In a bedstead fastening, the combination of two sections having interlocking engagement at two points, one of the sections having a binding surface intermediate the said points, and the other section having an abutment situated equidistant between said locking points, whereby to permit the reversal of the sections.

No. 64,144. Cattle Stable. (Etable.)

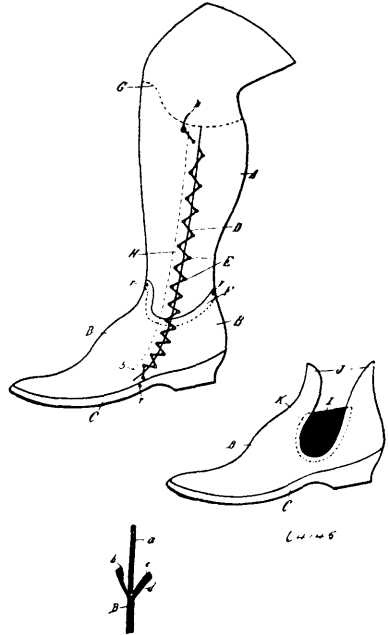


Amos Marshall Rush, Harriston, Ontario, Canada, 30th September 1899; 6 years. (Filed 15th May, 1899.)

Claim.—1st. In cattle stables, the means for supporting the rack P, in its two vertical positions, comprising the post C, the groove S,

the projection Q, the spring R<sup>11</sup>, and the supporting piece R<sup>1</sup>, substantially as described. 2nd. In cattle stables comprising stalls, feed box, water box K, in the slanting part G, of the section F, in combination the rack with means for supporting the rack P, in its two vertical positions, substantially as described.

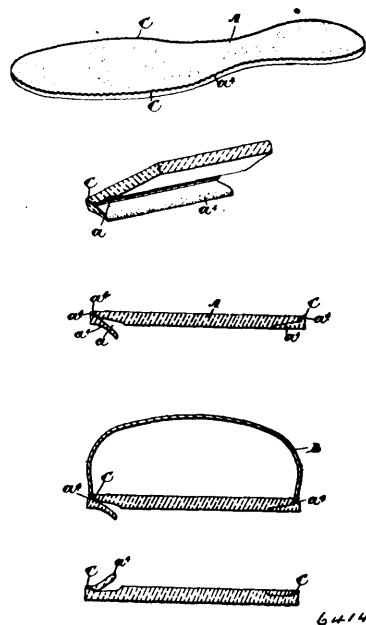
No. 64,145. Overshoe. (Guloches.)



Emory Jay Benedict, Minneapolis, Minnesota, U.S.A., 30th September, 1899; 6 years. (Filed 16th May, 1899.)

Claim.—1st. As a new article of manufacture, an overshoe, a portion of the upper edge of which is provided with a pocket. 2nd. As a new article of manufacture, an overshoe, the upper edge of which is in two parts or sections to provide an opening or pocket between the same. 3rd. As a new article of manufacture an overshoe, the upper edge of which is provided with a pocket in combination with a legging secured within said pocket. 4th. The combination of an overshoe, provided at a certain point with a pocket, and an elastic goring within said pocket. 5th. As a new article of manufacture, an overshoe in combination with a legging secured to and forming a part thereof.

No. 64,146. Slipper Soles. (Semelle de pantoufles.)



James Dixon Cooper and Mary Hale, both of Toronto, Ontario, Canada, 30th September, 1899; 6 years. (Filed 19th May, 1899.)

*Claim.*—1st. A sole for slippers and like articles, comprising a solid layer of leather having a channel cut from the inside towards the upper apex or corner, the flap of the channel being cemented down in position, and a row of stitching extending from the inside of the channel to the upper corner of the edge of the sole, as and for the purpose specified. 2nd. A sole for slippers and the like, comprising a layer of leather properly shaped and having the upper corner of the edge cut away around the entire sole, a channel cut from the inside towards the upper apex or corner, the flap of the channel being cemented down in position, and a row of stitching extending from the inside of the channel to the upper corner of the sole, as and for the purpose specified.

**No. 64,147. Cover for Bed Bolsters, Pillows, etc.**

(*Couverture de traversins, oreillers, etc.*)

Binns Kershaw, Manchester, Lancaster, England, 30th September, 1899; 6 years. (Filed 19th May, 1899.)

*Claim.*—1st. The manufacture of covers or slips for bed bolsters, bed pillows, cushions and the like, consisting in the use of circularly machine knitted fabric made up and proportioned to fit the pillow or the like for which it is intended, all substantially as hereinbefore set forth. 2nd. As a new article of manufacture, a cover or slip for bed bolsters, bed pillows, cushions and the like, made from circularly machine knitted fabric, all substantially as set forth.

## TRADE-MARKS

Registered during the month of September, 1899, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

7025. J. IRA SEEBACHER, New York, N.Y., U.S.A. Jewellery, 1st September, 1899.
7026. HENRY SOLOMON WELLCOME, trading as BURROUGHS WELLCOME AND COMPANY, Snow Hall Buildings, Holborn Viaduct, London, England. Preparations for use in Medicine and Pharmacy, 1st September, 1899.
7027. J. AND E. ATKINSON, LIMITED, 24 Old Bond Street, London, England. Perfumery and Toilet Articles, 1st September, 1899.
7028. THE MATT. J. JOHNSON COMPANY, West Superior, Wisconsin, U.S.A. A Medicine for the Cure of Rheumatism, 5th September, 1899.
7029. THE MALTED CEREALS COMPANY, Montreal, Que. Malt Breakfast Food, 5th September, 1899.
7030. JEAN BAPTISTE VANCHESTEIN ET FRIDOLIN VANCHESTEIN, St. Michel de Napierville, Que. Un Onguent pour le Rifie et les Maladies de la Peau, 5 septembre, 1899.
7031. } THE HAWKESBURY LUMBER COMPANY, LIMITED, Ottawa, Ont.  
7032. } Deals or Planks, 8th September, 1899.  
7033. }
7034. SMITH, KLINE AND FRENCH COMPANY, Philadelphia, Pennsylvania, U.S.A. Food for Infants and Invalids, 9th September, 1899.
7035. ALFRED WILKES, Royal Victoria Works, Studley, Warwickshire, England. Needles of all descriptions, Fish Hooks, Bodkins, Crochet Hooks, Pins of all descriptions, 9th September, 1899.
7036. ALFRED SAVAGE AND SON, Montreal, Que. Toilet Soap, 9th September, 1899.
7037. ALFRED J. LAURENCE, Montreal, Que. Une Preparation pour enlever les Cors, les Verrues et les Durillons, 9 septembre, 1899.
7038. ROBERT FULTON CREAM, Quebec, Que. Flour, 9th September, 1899.
7039. WILLIAM EDGE AND SONS, LIMITED, 50 Raphael Street, Bolton, Lancastershire, England. Preparations for Bleaching, Sizing and Finishing Textile Fabrics, 9th September, 1899.
7040. ORLOW GESELLSCHAFT FUR ELEKTRISCHE BELEUCHTUNG (MIT BESCHRANKTER HAFTUNG), 131 d Friedrichstrasse, Berlin, Germany. Illuminating Articles and parts of same, also Incandescent Threads for Electric Lighting, 11th September, 1899.
7041. THE KENNEDY COMPANY, LIMITED, Montreal, Que. Clothing for Men and Boys: such as Coats, Vests and Pants, 11th September, 1899.
7042. JAMES HENRY McKEOWN, Montreal, Que. Bread, 12th September, 1899.
7043. THOMAS L. BRODIE, Montreal, Que. Tooth Powder, 14th September, 1899.
7044. THOMAS L. BRODIE, Montreal, Que. A Polishing and Burnishing Powder. Paste or Soap, 14th September, 1899.
7045. GEORGE FOSTER CLARK, Maidstone, Kent, England, trading as FOSTER CLARK AND COMPANY. General Trade Mark, 18th September, 1899.
7046. B. HOUDE ET COMPAGNIE, Quebec, Que. Tabac coupe, en torquette et cigarettes, 19 septembre, 1899.
7047. ALFRED WILKES, Royal Victoria Works, Studley, Warwickshire, England. Needles of all descriptions, Fish Hooks, Bodkins, Crochet Hooks, Pins of all descriptions, 19th September, 1899.
7048. JOHNSON AND JOHNSON, New Brunswick, New Jersey, U.S.A. Medicinal and Surgical Plasters, Absorbent and Medicated Cottons, Antiseptic Dressings, Surgical Appliances, Bougies and Catheters, and Suspensory Bandages and the like, 19th September, 1899.
7049. WILLIAM BRAYBROOKE BAYLEY, Toronto, Ont. Package Foods: such as Cocoa, Dried and Evaporated Fruits, Mince Meat, Spices, Pop Corn and Bird Seed, 20th September, 1899.

7050. GEORGE HENRY SWEET, Windsor, Ont. A Neuralgia Cure, 20th September, 1899.
7051. NEIL C. POLSON, Kingston, Ont. A Cure for Diseases of the Respiratory and Nasal Passages, 21st September, 1899.
7052. SARAH MARGARET DORLAND, Toronto, Ont. Proprietary Medicines, 25th September, 1899.
7053. L. WURZBURG, Vancouver, B.C. Carabus Meat, 25th September, 1899.
7054. } THOMAS ROBERTSON AND COMPANY, LIMITED, Montreal Que.  
7055. } Water Closets, 26th September, 1899.
7056. HENRY JAMES ROSS, Montreal, Que. A Medicine for Throat and Nose Troubles, 26th September, 1899.
7057. THE CLOAK MANUFACTURING COMPANY OF TORONTO, LIMITED, Toronto, Ont. Garments for Ladies : such as Cloaks, Mantles, Skirts and Blouses, 26th September, 1899.
7058. DAVID J. DYSON, Winnipeg, Man. Baking Powder, 28th September, 1899.
7059. JOHN W. TREFRY, Yarmouth, N.S. A Medicinal Compound for the Cure of Rheumatism, Biliousness and kindred complaints, 30th September, 1899.



## COPYRIGHTS

Entered during the month of September, 1899, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

10777. THE BARTHELMES. March and Two-Step. By A. Wellesley. A. A. Barthelmes & Co., Toronto, Ont., 1st September, 1899.
10778. McCLEW'S COMBINATION RECEIPT AND CASH BOOK. David McClew, Deseronto, Ont., 1st September, 1899.
10779. A ROSE FABLE. By C. B. Hawley. (Music.) The John Church Co., Cincinnati, Ohio, U.S.A., 1st September, 1899.
10780. LYDIA. Words by Lizette Woodworth Reese. Music by Margaret Ruthven Lang. Op. 32, No. 2. The John Church Co., Cincinnati, Ohio, U.S.A., 1st September, 1899.
10781. THE SEASONS. By Frederic H. Cowen. (Music.) The John Church Co., Cincinnati, Ohio, U.S.A., 5th September, 1899.
10782. GIVE. Words by Adelaide Proctor. Music by Frederic H. Cowen. The John Church Co., Cincinnati, Ohio, U.S.A., 5th September, 1899.
10783. A SPRING IDYL. By Margaret Ruthven Lang. Op. 33. The John Church Co., Cincinnati, Ohio, U.S.A., 5th September, 1899.
10784. REVERY. By Margaret Ruthven Lang. Op. 31. The John Church Co., Cincinnati, Ohio, U.S.A., 5th September, 1899.
10785. A SONG OF MAY. Words by Lizette Woodworth Reese. Music by Margaret Ruthven Lang. Op. 32, No. 1. The John Church Co., Cincinnati, Ohio, U.S.A., 5th September, 1899.
10786. A BIBLIOGRAPHY OF CANADIAN POETRY. (English.) By C. C. James. Victoria University Library. Publication No. 1. Charles Canniff James, Toronto, Ont., 5th September, 1899.
10787. TABLE OF VERTICAL BRICK COURSES. Giving the Number of Brick Tiers or Figured Results of Them. David Alexander Hewett, Toronto, Ont., 5th September, 1899.
10788. THE STENOGRAPHER'S COMPANION. Volume II, Number 6, September, 1899. Robert Goltman, Montreal, Que., 5th September, 1899.
10789. HISTORY OF ROME. By Rev. M. Creighton, M.A. The Copp, Clark Co. (Ltd.), Toronto, Ont., 5th September, 1899.
10790. NUMBER 101. MACKAY'S MOUNTAIN ON KAMINISTIQUIA RIVER. (Photo.) J. F. Cooke, Port Arthur, Ont., 5th September, 1899.
10791. NUMBER 122. ON THE KAMINISTIQUIA RIVER. (Photo.) J. F. Cooke, Port Arthur, Ont., 5th September, 1899.
10792. NUMBER A. KAKABEKA FALLS. (Photo.) J. F. Cooke, Port Arthur, Ont., 5th September, 1899.
10793. NUMBER 112. AROUND THE DOCKS, PORT ARTHUR. (Photo.) J. F. Cooke, Port Arthur, Ont., 5th September, 1899.
10794. NUMBER 52. THUNDER CAPE, 1370 FEET HIGH, AT SIX MILES. (Photo.) J. F. Cooke, Port Arthur, Ont. 5th September, 1899.
10795. NUMBER 53. THUNDER CAPE AND LIGHTHOUSE. (Photo.) J. F. Cooke, Port Arthur, Ont., 5th September, 1899.
10796. COURS PRATIQUE DE LANGUE FRANÇAISE. Grammaire et Composition. Par les Frères du Sacré-Cœur. Cours Moyen. Première Edition. R. R. Frères du Sacré-Cœur, Arthabaskaville, Qué., 5 septembre 1899.
10797. CANADIAN CATHOLIC READERS—FOURTH BOOK. The Copp, Clark Co. (Ltd.), Toronto, Ont., 7th September, 1899.
10798. LEONORA WALTZES. By J. Hellmuth Clucas. Amey & Hodgins, Toronto, Ont., 7th September, 1899.
10799. THAT'S THE WAY. (Kate and Ned.) (Song.) John Miller, Middlesex, N.B., 8th September, 1899.
10800. IN THE VALLEY WHERE THE WILD FLOWERS GROW. (Song.) John Miller, Middlesex, N.B., 8th September, 1899.

10801. LOVE AND UNION SEPARATED. (Song.) John Miller, Middlesex, N.B., 8th September, 1899.
10802. RETURNING FROM SEVEN YEARS IN EGYPT. (Song.) John Miller, Middlesex, N.B., 8th September, 1899.
10803. IN HER DAYS. A Calendar for 1901. Sara Mickle, Toronto, Ont., 8th September, 1899.
10804. CITY OF OTTAWA. Capital of the Dominion of Canada. (Book.) C. W. Mitchell, Ottawa, Ont., 8th September, 1899.
10805. THE BRITISH COLUMBIA PLAYING CARDS (FIFTY-TWO IN NUMBER.) ILLUSTRATIVE OF THE PROVINCE OF BRITISH COLUMBIA. The Province Publishing Co., Limited Liability, Vancouver, B.C., 11th September, 1899.
- 10805½. CAPTAIN AND MRS. ALFRED DREYFUS; BEFORE HIS CONVICTION AND WHEN RELEASED FROM PRISON. (Photo.) Charles Orgaard, Toronto, Ont., 11th September, 1899.
10806. PUBLIC SCHOOL VERTICAL COPY BOOK. By A. C. Casselman, Nos. 1 to 7 inclusive. The W. J. Gage Co. (Ltd.) Toronto, Ont., 13th September, 1899.
10807. DANCE OF THE KISSING BUGS. By Paul Kruger. Willimott H. Billing, Toronto, Ont., 13th September, 1899.
10808. COMBINED BRITISH FLAGS AND EMBLEMS. (Lithograph.) Samuel Harris, Toronto, Ont., 14th September, 1899.
10809. THE KING'S MIRROR. By Anthony Hope. George N. Morang & Co. (Ltd.), Toronto, Ont., 15th September, 1899.
10810. NOTES ON ENGLISH GRAMMAR. By H. M. Bradford, M.A. A. & W. MacKinlay, Halifax, N.S., 15th September, 1899.
10811. THE BIBLE VINDICATED BY MARVELLOUS DISCOVERIES IN SCRIPTURE LANDS. By the Author of "The Harvest Home in Palestine, &c." Robert A. H. Morrow, St. John, N.B., 15th September, 1899.
10812. HOW WE ARE GOVERNED. By George A. Fraser. Educational Publishing Co., Toronto, Ont., 16th September, 1899.
10813. THE PATH OF A STAR. By Mrs. Everard Cotes. (Sara Jeannette Duncan.) W. J. Gage & Co., (Ltd.), Toronto, Ont., 18th September, 1899.
10814. MAP OF PROVINCE OF ONTARIO. Showing Township and County Lines, Railroads and Post Offices and Distances, also Index showing Population of all Towns and Provinces. The Provincial Map Publishing Co., Toronto, Ont., 18th September, 1899.
10815. PIONEER LIFE IN ZORRA. By Rev. W. A. Mackay, B.A., D.D. William Briggs, Toronto, Ont., 18th September, 1899.
10816. ENDYMION. Words by Henry Wadsworth Longfellow, Music by Liza Lehmann. The John Church Company, Cincinnati, Ohio, U.S.A., 18th September, 1899.
10817. AN ECHO. Words by W. E. Henley. Music by C. B. Hawley. The John Church Company, Cincinnati, Ohio, U.S.A., 18th September, 1899.
10818. CONTE SÉRIEUX. By Horatio W. Parker, Op. 49. No. 1. The John Church Company, Cincinnati, Ohio, U.S.A., 18th September, 1899.
10819. LA SAUTERELLE. By Horatio W. Parker. Op. 49. No. 2. The John Church Company, Cincinnati, Ohio, U.S.A., 18th September, 1899.)
10820. VALSE GRACILE. By Horatio W. Parker. Op. 49. No. 3. The John Church Company, Cincinnati, U.S.A., 18th September, 1899.
10821. THE DOMINION SHORT HORN HERD BOOK. Volume XIV. 1898. The Dominion Short Horn Breeders' Association, Toronto, Ont., 20th September, 1899.
10822. THE CANADIAN AYRSHIRE HERD BOOK. Volume IX. The Canadian Ayrshire Breeders' Association, Toronto, Ont., 20th September, 1899.
10823. THE CANADIAN HEREFORD HERD BOOK. Volume I. The Canadian Hereford Breeders' Association, Toronto, Ont., 20th September, 1899.
10824. LA TORONTA. (Three-Step.) By Edward W. Miller. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 20th September, 1899.
10825. THE DOMINION COOK BOOK. By Anne Clarke. Revised Edition. George J. McLeod, Toronto, Ont., 20th September, 1899.

10826. HISTORY OF GREECE. By C. A. Fyffe, M.A., with Maps. The Copp, Clark Co. (Ltd.), Toronto, Ont., 22nd September, 1899.
10827. MENTAL ARITHMETIC. Part I. By Chas. G. Fraser. The Educational Publishing Company, Toronto, Ont., 22nd September, 1899.
10828. THE RESTITUTION OF ALL THINGS; OR, THE GREAT RESURRECTION. And Other Important Subjects Explained. By Mrs. Mary Gilbert, Toronto, Ont., 23rd September, 1899.
10829. THE HISTORY OF FREEMASONRY IN CANADA. From its Introduction in 1749. Volumes I and II. By J. Ross Robertson, Toronto, Ont., 25th September, 1899.
10830. B.C. GUIDE. No. 6, September, 1899. The British Columbia Printing and Engraving Corporation, (Ltd.), Vancouver, B.C., 26th September, 1899.
10831. MGR. F. X. CLOUTIER. Evêque des Trois Rivières. (Lithograph.) Joseph Valentine, Bastiscan, Que., 26th September, 1899.
10832. QUEEN VICTORIA ROCK, LAKE ROSSEAU, MUSKOKA. (Photograph.) Frank W. Micklethwaite, Toronto, Ont., 26th September, 1899.
10833. SILENT DRUMMER; ILLUSTRATED PIPE SUPPLEMENT, SEPTEMBER, 1899. (Price List.) Steele & Honeysett, Toronto, Ont., 27th September, 1899.
10834. REVIEW DAY. (March and Two-Step.) By G. W. Adams. Amey & Hodgins, Toronto, Ont., 28th September, 1899.
10835. A SELECTION OF READINGS AND SONGS FROM THE WORKS OF JOHN IMRIE. Imrie, Graham & Company, Toronto, Ont., 28th September, 1899.
10836. AT EVENTIDE. A Reverie upon the Glorious Reign of Her Majesty the Queen. (Poem.) Agnes Grote Copeland, Toronto, Ont., 29th September, 1899.
10837. FORGOTTEN. Words by Annie E. Foley. Music by Geo. A. Watts. Annie Elizabeth Foley, London, Ont., 29th September, 1899.

### *ERRATUM*

The following words were inadvertently omitted, after the phrase "a single integral sheet of metal", from the claim of Mr. Freeman Payzant's Patent, No. 63,578, as published in The Patent Record for last August :—

"An annular flange integral with the upper edge of said body portion."