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# The Canadian Patent Office

## RECORD





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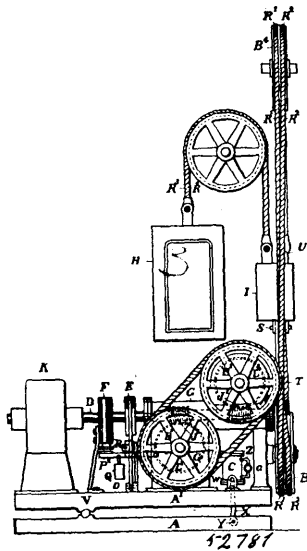
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#### No. 52,781. Elevator. (Elevateur.)

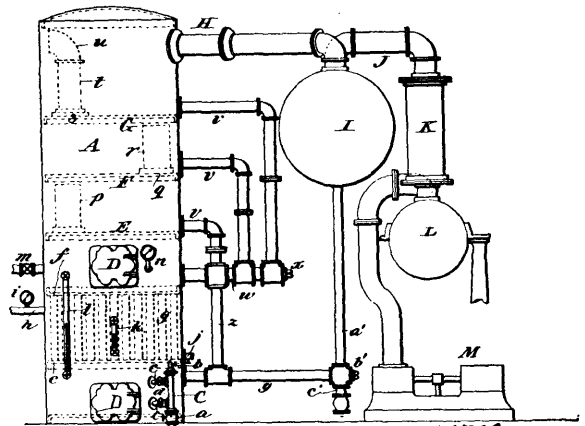


Cofran I. Hall and the Park & Lacy Company, both of San Francisco, California, U.S.A., 2nd July, 1896; 6 years. (Filed 19th May, 1896.)

*Claim.*—1st. In an elevator, the combination of a cage or platform, traction and sustaining pulleys in the manner described, with a counter weight, impelling ropes and motive apparatus, in the manner substantially as herein specified and shown. 2nd. In an elevator, a main frame with traction pulleys and other impelling apparatus thereon, pivotally supported in such manner that a portion of the weight of the frame and connected parts will rest in the bight of the traction impelling ropes and maintain an elastic tension thereon, in the manner substantially as described. 3rd. In an elevator, a cage or platform, a counter weight and traction impelling ropes, in the manner described, the latter passing around the trac-

tion pulleys and an idle deflecting pulley or pulleys to change and direct the course or line of the ropes, in the manner substantially as described.

#### No. 52,782. Evaporator. (Evaporateur.)



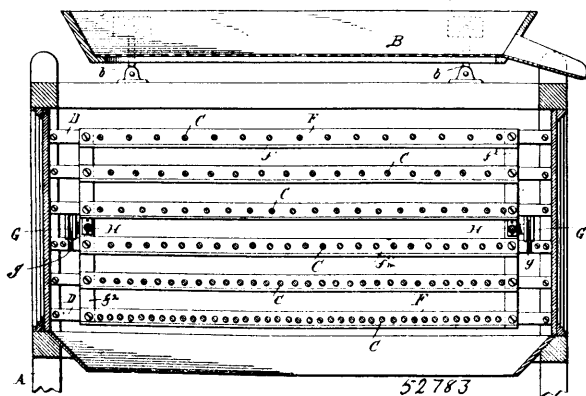
The Hamilton Powder Company, Montreal, Quebec, Canada, assignee of Joseph van Ruyambeke, New York, State of New York, U.S.A., 2nd July, 1896; 6 years. (Filed 15th Jan., 1896.)

*Claim.*—1st. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, and independent return pipes placed externally connecting the spaces above said dash plates with the lower part of the evaporating chamber, whereby the vapours condensed on said dash plates will be returned for re-evaporation, substantially as set forth. 2nd. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, independent return pipes placed externally connecting the spaces above said dash plates with the lower part of the evaporating chamber, whereby the vapours condensed on said dash plates will be returned for re-evaporation, and a catch all on one side of the evaporator and connected therewith, substantially as set forth. 3rd. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, independent return pipes placed externally connecting the spaces above said dash plates with the lower part of the evaporating chamber, whereby the vapours condensed on said dash plates will be returned for re-evaporation, and a catch all on one side of the evaporator, and connected therewith, and a condenser connected with said catch all substantially as set forth. 4th. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, independent return pipes placed extern-

ally connecting the spaces above said dash plates with the lower part of the evaporating chamber, a catch all at one side of the evaporator and connected therewith, a condenser connected with said catch all, and a vacuum pump connected with said condenser for maintaining a vacuum in the apparatus, substantially as set forth. 5th. An evaporating apparatus, consisting of an evaporating chamber, a steam drum in said evaporator, a salt chamber beneath said drum, a door for said salt chamber, two or more dash plates within the evaporator, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, and return pipes connecting the spaces above said dash plates with the lower part of the evaporating chamber, whereby the vapours condensed on said dash plates will be returned for re-evaporation, substantially as set forth. 6th. An evaporating apparatus, consisting of an evaporating chamber, a steam drum in said evaporator, a salt chamber beneath said drum, a door for said salt chamber, two or more dash plates within the evaporator, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, and independent return pipes placed externally leading from the spaces above said dash plates into the lower part of the evaporator, for the purpose mentioned, substantially as set forth. 7th. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, a dash plate mounted in said evaporator, an opening in said dash plate, a pipe extending up from said opening, and a curved pipe at the upper end of said pipe, the mouth of said curved pipe being adjacent to the interior wall of the evaporator, substantially as set forth. 8th. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more horizontal dash plates arranged one above the other in said evaporator, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, pipes extending up from said openings with the upper open ends adjacent to the dash plates immediately above the same, and a curved pipe at the end of the upper pipe, the mouth of said curved pipe being adjacent to the interior walls of the evaporator, substantially as set forth. 9th. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, return pipes *r, r, r,* leading from the spaces above said dash plates, a pipe *w* with which the pipes *r* are connected, a screw plug *x* in the pipe *w*, a pipe *u* leading into the lower part of the evaporator, and a pipe *z* connecting the pipes *w* and *u*, substantially as set forth. 10th. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, return pipes *r, r, r,* leading from the spaces above said dash plates, a pipe *w* with which the pipes *r* are connected, a pipe *u* leading into the lower part of the evaporator, a pipe *z* connecting the pipes *w* and *u*, and a catch all to one side of the evaporator and connected with the same, substantially as set forth. 11th. An evaporating apparatus, consisting of an evaporating chamber, means for heating the liquid therein, two or more dash plates within the evaporator above the level of the liquid therein, the openings in said dash plates being so arranged as to interrupt the free passage of the vapours, return pipes *r, r, r,* leading from the spaces above the said dash plates, a pipe *w* with which the pipes *r* are connected, a pipe *u* leading into the lower part of the evaporator, a pipe *z* connecting the pipes *w* and *u*, a vertical catch all drum *N* to one side of the evaporator and connected therewith, a pipe *O* extending into said catch all drum with its upper open end above the vapour pipe from the evaporator, and with its lower end connected with a condenser, and a pipe *a'* connecting said condenser with the pipe *u*, substantially as set forth.

**No. 52,783. Corn Silking Machine.**

(Machine à éplucher le blé-d'inle.)



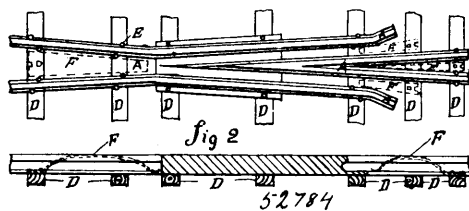
The Sprague Manufacturing Company, assignee of John C. McIntyre, both of Farnham, New York, U.S.A., 2nd July, 1896; 6 years. (Filed 27th April, 1896.)

*Claim.*—1st. The combination with a supporting frame provided with a horizontal shaking sieve, of a series of separating rods supported in said frame below the sieve and arranged in horizontal rows one below the other, and cleaner bars having openings through which the separating rods pass, substantially as set forth. 2nd. The combination with the supporting frame provided with a horizontal shaking sieve, of a series of separating bars supported at their ends in said frame below the sieve and arranged in horizontal rows one below the other, the separating rods of the several rows being arranged progressively closer together from the uppermost to the lowermost row and cleaner bars adapted to move lengthwise upon said separating rods, substantially as set forth. 3rd. The combination with a series of separating rods, of a cleaner bar adapted to slide lengthwise on said rods and provided with a flange or ledge below said rods, substantially as set forth. 4th. The combination with the front and rear supporting bars, of a series of separating rods attached at their rear ends to the rear supporting bar and capable of rising at their front ends above the front supporting bars, means for lifting the front ends of the separating rods and a cleaner bar arranged to slide on the separating bars, substantially as set forth. 5th. The combination with the rear supporting bar and the front supporting bar, of separating rods loosely connected at their rear ends with the rear supporting bar and resting loosely with their front ends in the notches of the front supporting bar, a cleaner bar arranged to slide upon said separating rods and means for lifting the front ends of said rods, substantially as set forth. 6th. The combination with the front and rear supporting bars, of separating rods connected loosely at their rear ends with the rear supporting bar and resting loosely with their front ends upon the front supporting bar, a cleaner bar arranged to slide upon said rods, rollers connected with the cleaner bar, and inclined tracks supporting said rollers, whereby the cleaner bar is raised above the front supporting bar upon being drawn forward, substantially as set forth.

**No. 52,784. Foot Guard for Railway Frogs.**

(Garde pour rails de croisement)

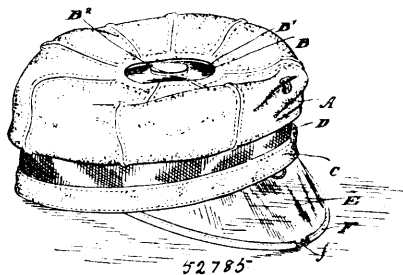
Fig 1



William Driscoll, Brockville, Ontario, Canada, 2nd July, 1896; 6 years. (Filed 30th May, 1896.)

*Claim.*—1st. The combination of railway-frog foot-guards *F* composed of spring steel bent circular form downwards and outwards at both ends, tapered at the front end and placed between the rails *A, B* and *C*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the guards *F* composed of steel spring of circular form placed longitudinally between the rails *A, B* and *C*, one end secured to the tie and the other end loose, made high enough to come up within half an inch of the crown of the rails, substantially as and for the purpose hereinbefore set forth.

**No. 52,785. Cap. (Bonnet.)**

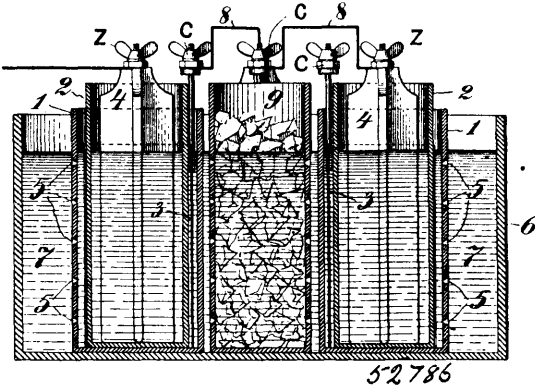


The Firm of Gillespie, Ansley and Dixon, assignees of John Jakob Zweifel, all of Toronto, Ontario, Canada, 2nd July, 1896; 6 years. (Filed 13th June, 1896.)

*Claim.*—1st. The combination with a cap made of cloth or any other suitable material, of a transparent peak as and for the purpose specified. 2nd. The combination with a cap, made of cloth or any other suitable material, of a transparent peak and an edging provided with a reinforcing wire, as and for the purpose specified. 3rd. In a cap, in combination the body portion, a transparent peak and a perforated band or opening in proximity to such peak, as and for the purpose specified. 4th. In a cap, the combination with the body portion, of a peak formed with two layers of cloth provided with

openings, or goggles and transparent green celluloid to extend over the openings as and for the purpose specified. 5th. In a cap, in combination the body portion, the peak provided with the transparent portion and supplemental covering layer for such transparent portion, as and for the purpose specified.

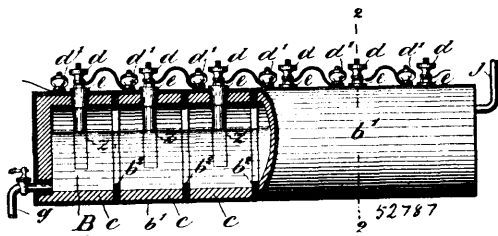
**No. 52,786. Galvanic Battery.** (*Batterie galvanique.*)



Edward Stanley Boynton, Brooklyn, New York, U.S.A., 2nd July, 1896; 6 years. (Filed 17th October, 1895.)

*Claim.*—1st. A cell for a galvanic battery, comprising an outer cup 1, provided at one side with a small aperture or apertures  $z$ , for the admission of the battery-liquid, an electrode 2, within said cup, a porous cup 3, within the cup 1, and an electrode 4, within said porous cup, substantially as set forth. 2nd. A galvanic battery comprising a vessel 6, to contain a liquid electrolyte, and two or more voltaic cells in the said vessel, each of said cells comprising a cup 1, of suitable impervious material, having in one of its sides a contracted aperture for the electrolyte to pass through, a porous cup 3, in the cup 1, an electrode 2, in the outer cup 1, and an electrode 4 in the porous cup, said cells being connected electrically in series, as set forth.

**No. 52,787. Galvanic Battery.** (*Batterie galvanique.*)



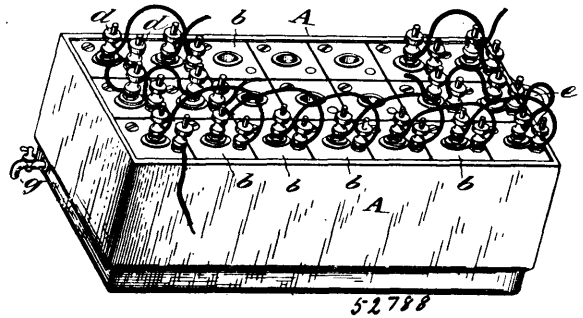
Edward Stanley Boynton, Brooklyn, New York, U.S.A., 2nd July, 1896; 6 years. (Filed 17th October, 1895.)

*Claim.*—1st. A galvanic battery having a common exterior casing for the elements, wholly closed at its sides and ends, and having a series of tubular, open-ended, carbon electrodes arranged end to end within said casing and insulated from each other at their abutting ends, whereby a continuous chamber for a liquid electrolyte is formed, said chamber extending through all of the carbons, substantially as set forth. 2nd. A galvanic battery comprising a series of hollow, tube-like, carbon electrodes, arranged end to end and separated at their adjacent ends by insulating material, whereby an electrolyte chamber, common to all the cells or elements, is formed, electrodes  $z$  inserted in apertures in the walls of the respective carbon electrodes and extending into the said chamber, and a suitable casing enclosing the series of hollow electrodes, substantially as set forth. 3rd. A galvanic battery having the chamber to contain the liquid electrolyte for, and common to, all of the elements, formed of similar open-ended, hollow carbons arranged end to end and separated from each other by insulating material, the hollows in the several carbons communicating and being continuous whereby the electrolyte is free to flow from one end of the series of carbons to the other, substantially as set forth. 4th. The combination to form a galvanic battery, of a closed casing  $b^1$ , a series of hollow carbon electrodes  $c$  in said casing and arranged end to end therein, insulating rings  $b^2$  between the abutting ends of the carbons, and the electrodes  $z$  removably set in apertures in the respective carbons, and insulated from the latter, a chamber to contain an electrolyte being thus formed within the hollows of the series of carbons, substantially as set forth.

**No. 52,788. Galvanic Battery.** (*Batterie galvanique.*)

Edward Stanley Boynton, Brooklyn, New York, U.S.A., 2nd July, 1896; 6 years. (Filed 17th October, 1895.)

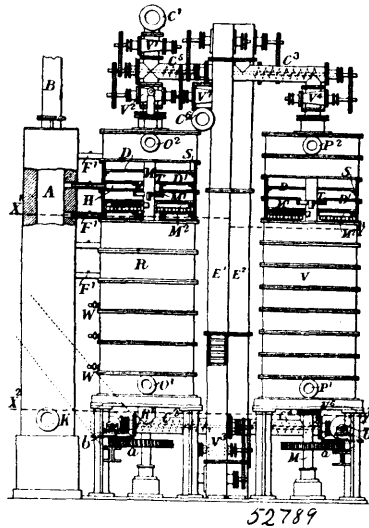
*Claim.*—1st. A galvanic battery having an electrolyte in common for all of the elements, and two or more elements immersed therein,



one electrode of each element being separated by insulating material from the corresponding electrode of the adjacent element, whereby full voltage is obtained, substantially as set forth. 2nd. A galvanic battery comprising a receptacle containing an electrolyte, and two or more elements immersed in said electrolyte, each element having an enclosing casing of some insulating material open at its lower part to permit free access to the electrodes of the liquid in the receptacle, substantially as set forth. 3rd. In a galvanic battery, the combination with a receptacle to contain the liquid electrolyte, of cells fitting into said receptacle, each of said cells comprising an open-bottomed casing of insulating material, and two electrodes pendant from the cover of said casing, whereby the liquid electrolyte has access to all of the electrodes of the cells, substantially as set forth. 4th. In a galvanic battery, the combination to form a cell, of an open-bottom casing  $b$  closed at the top, a tubular electrode  $c$  suspended from the top of said casing and extending only part way to the bottom of the same, and the electrode  $z$  within the electrode  $c$ , and also suspended from the top of the casing, substantially as set forth.

**No. 52,789. Apparatus for treating Nickel Ores, etc.**

(*Appareil pour le traitement des mineraux.*)



Ludwig Mond, Regent's Park, London, England, 2nd July, 1896; 6 years. (Filed 10th December, 1895.)

*Claim.*—1st. Apparatus for treating materials containing nickel with carbon non-oxide, consisting of the combination of a chamber adapted for reducing the material by reducing gases at an elevated temperature, a chamber adapted for treating the same with carbon non-oxide, means for causing the ores to descend over superposed trays in each compartment, means for conveying the material discharged from the bottom of the reducing chamber to the top of the volatilizing chamber, means for supplying the lower end of the reducing chamber with reducing gases, means for supplying the lower end of the evaporating chamber with carbon non-oxide, and means for discharging the said gases from the upper ends of the said chambers, substantially as described. 2nd. Apparatus for treating materials containing nickel with carbon non-oxide, consisting of the combination of a chamber adapted for reducing the material by reducing gases at an elevated temperature, a chamber adapted for treating the same with carbon non-oxide, means for causing the ores to descend over superposed trays in each compartment, means for conveying the material discharged from the bottom of the reducing chamber to the top of the volatilizing chamber, means for supplying the lower end of the reducing chamber with reducing gases, means



for supplying the lower end of the evaporating chamber with carbon non-oxide, and means for discharging the said gases from the upper ends of said chambers, and rotary feed valves operating in combination with the conveyers adapted to feed the material from the reducer to the volatilizer, and *vice versa*, while preventing the gases in the one chamber from mixing with those in the other chamber, substantially as described. 3rd. Apparatus for reducing material containing nickel, preparatory to its treatment with carbon non-oxide, consisting of a cylindrical vessel R, divided into compartments by superposed trays D, D<sup>1</sup>, a stirring device adapted to cause the material to descend consecutively from one compartment to the other, chambers H on the under side of every alternate tray D<sup>1</sup> communicating on one side of a partition by flues F<sup>1</sup> with a combustion chamber for gaseous fuel A, and on the other side of said partition by means of flues F<sup>2</sup> with a chimney shaft B, means for supplying the material to be reduced at the top of the chamber R and for discharging the same at the bottom of said chamber, and means for passing reducing gas through the said chamber, substantially as described. 4th. Apparatus for reducing material containing nickel, preparatory to its treatment with carbon non-oxide, consisting of a cylindrical vessel R divided into compartments by superposed trays D, D<sup>1</sup>, a stirring device adapted to cause the material to descend consecutively from one compartment to another, chambers H on the under side of every alternate tray, the upper ones of which trays communicate with a combustion chamber for gaseous fuel A and a chimney shaft B, while the lower ones communicate with a cold air or water supply, means for supplying the material to be reduced at the top of the chamber R and for discharging the same at the bottom of said chamber, and means for passing reducing gas through the said chamber, substantially as described.

#### No. 52,790. Horn Fly Remedy.

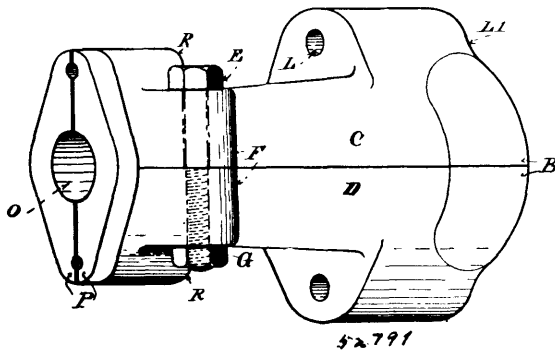
(Remède pour mouches à cornes.)

James D. MacLeod, Wigg, Prince Edward Island, Canada, 2nd July, 1896; 6 years (Filed 29th May, 1896.)

*Claim*.—A compound mixed by force pump or syringe composed of water, soap, kerosene oil, codfish oil and carbolic acid, substantially in the foregoing proportions and for the purposes set forth.

#### No. 52,791. Piston Packing Cylinder Head.

(Garniture de tête de piston.)



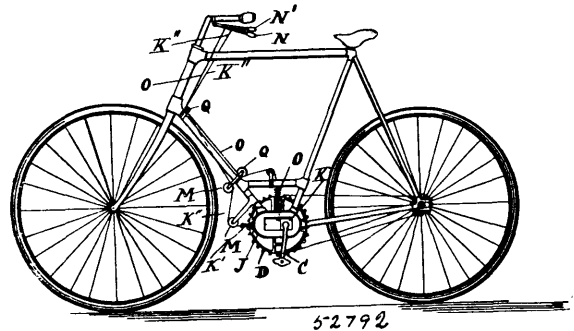
John George Leyner, Denver, Colorado, U.S.A., 2nd July, 1896; 6 years. (Filed 6th May, 1896.)

*Claim*.—1st. The combination with the piston rod and the cylinder of a divided cylinder head having a packing chamber through which the piston-rod passes, a dividing ring surrounding said piston-rod and seated in said packing chamber and adapted to form the bottom or inner wall of the said packing chamber, a counterbore in the end of said cylinder, a rubber buffer washer and a steel buffer washer in said counterbore between its step and the cylinder-head adapted to confine said ring in the cylinder head. 2nd. In a divided cylinder head the bolts for clamping the halves of the cylinder heads together, the gland stud screws, the lock-nuts and the divided gland, all combined substantially as shown. 3rd. In a divided cylinder head for direct acting engines, the lugs and tap bolts adapted to clamp the halves of the cylinder-head together, the check-nuts thereon, the gland studs, the check-nuts thereon, the divided gland, the packing chamber, the counterbore therein, the divided ring, and means for confining said ring in the cylinder head. 4th. The combination of the divided head having a packing chamber through which the piston operates, the divided gland adjustably secured to said cylinder head, the divided ring in said packing chamber, the piston-rod, the cylinder having the end counterbore, and the buffer washers therein adapted to confine said ring in said cylinder-head. 5th. The combination with the cylinder and the piston-rod of a divided cylinder head having a packing chamber through which the piston passes, a divided cupped packing ring in said chamber surrounding said piston-rod, a counterbore in the inner end of said packing chamber, a divided metal ring in said counterbore surrounding said piston-rod and adapted to form the bottom or inner wall of said packing chamber, and a circular recess and a stepped projection in one side of

said ring adapted to form an abutment for said cupped packing ring. 6th. The combination of the cylinder-head, the dividing gland, the packing chamber therein, the cupped packing ring, the inner wall ring, the gland adapted to said cupped packing ring, the cylinder, the piston and the buffers. 7th. The combination with the cylinder and the piston, of a piston packing cylinder head having a packing chamber, a divided gland in said chamber, means for adjusting said gland, a divided removable ring forming the bottom or inner wall of said packing chamber, a divided cupped shaped packing ring in said packing chamber surrounding said piston, and a stepped projection and circular recess in said wall ring adapted to receive and register with the form of said cupped packing ring.

#### No. 52,792. Driving Gear for Velocipedes, etc.

(Engrenage pour velocipedes.)

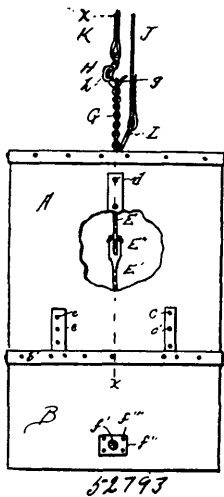


William James Freeman and Edwin Freeman, both of 99 York Road, Battersea, Surrey, England, 2nd July, 1896; 6 years. (Filed 26th May, 1896.)

*Claim*.—1st. In a driving gear for velocipedes and other machines, the combination of a chain-wheel D, having a slotted face *d* with a crank axle A, a crank C, secured to one end of the said axle, a crank B, secured to the said axle behind the slotted face *d*, and a crank C<sup>1</sup>, mounted loosely on the other end of the said axle, the cranks B and C<sup>1</sup> being provided with rollers *r*, *r*<sup>1</sup>, engaging with slots *a*, *a*, in the face *d*, all substantially as hereinbefore described and for the purpose stated. 2nd. In a driving gear for velocipedes and other machines, the chain-wheel D, having a slotted face or skeleton frame *d* formed integral therewith or attached thereto, the said face being parallel to the plane of rotation of the teeth T, and within a circle equal to or smaller than the pitch line of the wheel D. 3rd. In a driving gear for velocipedes and other machines, the combination of an annular chain-wheel having slots *a*, *a*, in the face thereof parallel to the teeth T, and antifriction rollers G, rotating on studs H, secured in lugs E, attached to or formed integral with the rim of the said wheel with a ring or disc R attached to the crank bracket, the periphery of the said ring being shaped to fit the rollers G, all substantially as described and for the purpose stated. 4th. In a driving gear for velocipedes and other machines, the combination of the wheel D, supported on rollers G revolving round a ring R attached to the crank-bracket with a crank axle A, eccentric to the centre of the wheel D, having a crank C, secured to one end of the said axle crank B, secured to the said axle behind the slotted face *d* of the wheel D, and a crank C<sup>1</sup>, mounted loosely on the said axle, the cranks B, C<sup>1</sup>, being provided with roller *r*, *r*<sup>1</sup>, adapted to engage with slots *a*, *a*, in the face of the wheel D, all substantially as specified and for the purpose stated. 5th. In a driving gear for velocipedes and other machines, the combination of a chain-wheel D, having a slotted face with an axle A, eccentric to the centre of the wheel D, crank C, cranks B, and C<sup>1</sup>, having rollers *r*, *r*<sup>1</sup>, engaging with slots *a*, *a*, in the face *d* of the chain-wheel and a means for varying the eccentricity of the axle A, substantially as described and for the purpose stated. 6th. In a driving gear for velocipedes and other machines, the combination of a sprocket-wheel D, having a slotted face and supported on rollers G, revolving round a ring or disc R, secured to a slotted crank bracket J, a block K provided with bearings to receive the crank axle A, sliding freely in the said bracket, a bolt L capable of vertical movement in the said bracket, and a means for moving the said block backwards and forwards in the bracket and raising and lowering the said bolt, for the purpose stated. 7th. In a driving gear for velocipedes and other machines, the combination of a slotted crank bracket J, a block K sliding freely therein in which rotates, a crank axle A, a ring or disc R, secured to the said bracket carrying a chain-wheel D, having a slotted face engaging with rollers attached to cranks secured to the crank axle, a spring and rod K<sup>1</sup> attached to the block and movable bolt L, with a cord K<sup>1</sup> attached at one end to a hand lever N, and at the other end to the rod K<sup>1</sup>, and a cord attached at one end to a rod P, and at the other end to a lever N<sup>1</sup>, all substantially as specified and for the purpose stated. 8th. In a driving gear for velocipedes and other machines, the combination of a chain-wheel D provided with slots *a*, *a* in the face thereof parallel to the teeth T, with a disc B attached to the crank bracket and fitted with antifriction rollers G rotating on ball bearings adjusted by screw bolts H<sup>1</sup>, secured to the said disc substantially as described and for the

purpose stated. 9th. In a driving gear for velocipedes and other machines, the combination of a ring or disc B attached to the crank bracket or other convenient portion of the frame of the machine with a chain-wheel D, supported by antifriction rollers G revolving in contact with the said ring, the said rollers rotating on studs H having screwed shanks eccentric to that portion of the studs on which the said rollers rotate, substantially as specified and for the purpose stated.

**No. 52,793. Self-Dumping, Shipping and Storing Case.** (*Boîte à bascule automatique pour expédier et emmagasiner.*)



Oliver Greene, Buffalo, New York, U.S.A., 2nd July, 1896; 6 years. (Filed 11th June, 1896.)

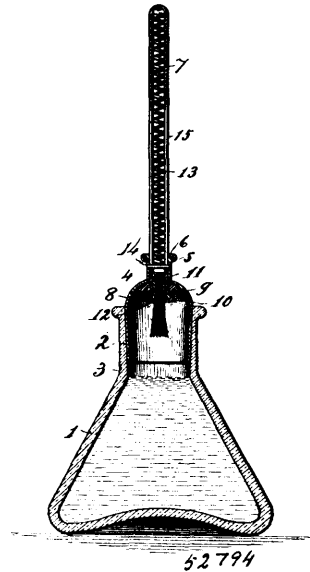
*Claim.*—1st. In a self-dumping shipping case or bucket, a bucket having hinged bottom leaves as described, a cross-bar at the upper end of said bucket, means for lifting the bucket, a lifting-bar composed of upper and lower sections pivoted together and both adapted to pass through a slotted aperture in the centre of said cross-bar, and means for connecting the lower section of the lifting-bar to the bottom leaves, the upper section of the lifting-bar being so arranged that it may be folded down upon the cross-bar and retained by a catch in such folded position when the bottom leaves of the bucket are closed, thus holding the lower section of the lifting-bar raised, and keeping the bucket closed, as described. 2nd. In a self-dumping bucket, the device for keeping the hinged bottom leaves closed consisting of a bucket having bottom leaves as described, a lifting-bar composed of two pivoted sections, both adapted to pass through a slotted aperture in the centre of a cross-bar located at the upper end of the bucket, and means for connecting the lower section of the lifting-bar with the bottom leaves of the said bucket, the upper section of the said lifting-bar being so arranged that it may be folded down upon the cross-bar and retained by a catch in such folded position when the bottom leaves of the bottom are closed, thus holding the lower section of the lifting-bar raised and keeping the bucket closed, as described. 3rd. In a self-dumping shipping case, the combination with the bucket, of hinged bottom leaves at its lower end, a U-shaped cross-bar below the inner edge of the said bucket, and having eyes near its outer ends and its parallel members secured to the inner sides of the bucket, a lifting-bar composed of two sections pivoted together and both adapted to pass through a slotted aperture in the centre of said cross-bar, the upper section of the said lifting-bar being so arranged as to be folded down upon said cross-bar and retained in such folded position, the lower section of said lifting-bar being connected to the bottom leaves by a chain and the upper section being connected to a lifting-cable, substantially as described.

**No. 52,794. Mucilage Brush.** (*Brosse à mucilage.*)

Joseph F. Smith, Washington, Columbia, U.S.A., 2nd July, 1896; 6 years. (Filed 13th June, 1896.)

*Claim.*—1st. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle and a handle carrying a brush upon its lower end and passing through said stopper and adapted to be held upwardly in raised position clear of the inner sides of said stopper. 2nd. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a vertically reciprocable handle carrying a brush upon its lower end and fitting the opening in said neck and a spring for normally holding said handle in its raised position, substantially and for the purpose described. 3rd. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a vertically reciprocable

handle carrying a brush upon its lower end fitting the opening in said neck, a washer secured to the lower end of said handle and



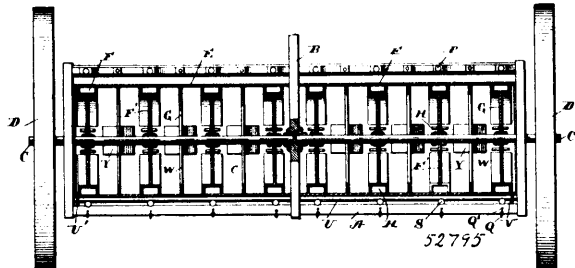
adapted to engage the inner surface of said stopper and a spring for normally holding said handle in its raised position, substantially as and for the purpose described. 4th. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a vertically reciprocable tubular handle carrying a brush at its lower end, fitting within the opening in said neck and having an elongated slot in each side thereof, a pin passing through the neck of said stopper and the elongated slots in said handle and a coil spring fitting within said handle, engaging the upper end thereof and bearing against said pin, substantially as and for the purpose described. 5th. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a vertically reciprocable tubular handle carrying a brush at its lower end, fitting within the opening in said neck and having an elongated slot in each side thereof, a pin passing through the neck of said stopper and the elongated slot in said handle, a coil spring fitting within said handle, engaging the upper end thereof and bearing against said pin and a stop on the lower end of said handle for limiting the upward movement thereof, substantially as and for the purpose described. 6th. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a vertically reciprocable tubular handle carrying a brush at its lower end, fitting within the opening in said neck and having an elongated slot in each side thereof, a pin passing through the neck of said stopper and the elongated slot in said handle, a coil spring fitting within said handle, engaging the upper end thereof and bearing against said pin and a washer secured to the lower end of said handle, adapted to engage the inner surface of said stopper adjacent to the neck thereof to limit the upward movement of said handle and to complete the closure of the opening through said neck. 7th. The combination with a bottle for containing mucilage, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form, with a contracted neck having an annular flange or shoulder at the upper end thereof, a vertically reciprocable tubular handle fitting the opening in said neck, having an elongated slot in each side thereof and crimped at its lower end, forming an annular shoulder upon its outer side and a groove upon its inner side, a brush adapted to fit within the lower end of said tubular handle and be held in place by the engagement of a shoulder upon its casing with the groove on the inner surface of said handle, a washer surrounding said handle and resting upon the shoulder at the lower end of said handle, a pin passing through said neck and the elongated slots in said handle and a spring fitting within said tubular handle, engaging the upper end thereof and bearing against said pin, substantially as and for the purpose described.

**No. 52,795. Grain Drill.** (*Semoir en ligne.*)

Alonzo Stansel, Yorkville, Illinois, U.S.A., 2nd July, 1896; 6 years (Filed 13th June, 1896.)

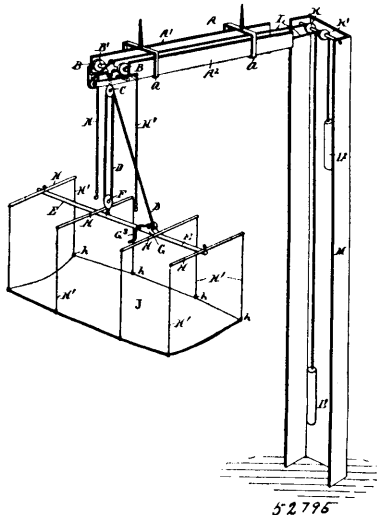
*Claim.*—1st. The combination of a grain container, disks arranged vertically and adapted to revolve therein, open ways into which the disks extend, blades on the peripheries of the disks which move in said ways, and ingress and egress grain openings for the ways, substantially as shown and described. 2nd. The combination of the

casing, the ways F, the seed carrying disks G revoluble therein, the blades H secured transversely to the peripheries of the disks, the



said disks being notched inward between the blades and the discharges for the ways, substantially as shown and described. 3rd. In a grain drill, the combination of the frame, a dropping mechanism, the shoes, the bars extended upward from the shoes, pins projected from the frame which the said bars are adapted to fit over, the outwardly movable locking plate for confining the bars on said pins and springs V for holding the said plate in position, substantially as shown and described.

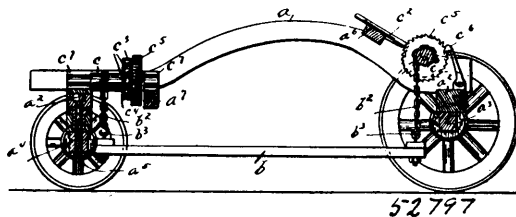
**No. 52,796. Lifting Device. (Appareil pour soulever.)**



Charles B. Ulrich, Ypsilanti, Michigan, U.S.A., 2nd July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. In a lifting device, the combination of a lifting bar, provided with a pulley, a rope or cable engaged with said pulley, and a windlass engaged with said bar and connected with said rope or cable, for the purpose set forth. 2nd. In combination, a track provided with a carriage to travel thereon, a pulley connected with said carriage, a lifting bar provided with a pulley, and a rope engaged with said pulleys, for the purpose set forth. 3rd. In a lifting device, the combination of a lifting bar, a series of cross arms engaged therewith, depending devices connected with the cross arms, a rope or cable engaged with the lifting bar, and means to operate said rope or cable, for the purpose set forth. 4th. In a lifting device, the combination of a lifting bar, a series of cross arms engaged therewith, provided with depending devices, a pulley, a rope or cable engaged with said pulley, and a windlass engaged with said bar and connected with said rope or cable, for the purpose set forth. 5th. In combination a track provided with a carriage to travel thereon, a pulley connected with said carriage, a lifting bar provided with a pulley, a series of cross arms engaged with the lifting bar, depending devices connected with the cross arms, and a rope engaged with said pulleys, for the purpose set forth. 6th. In combination, a track, a carriage to travel thereupon, a lifting bar connected with said carriage, a series of cross arms engaged with the lifting bar, depending devices connected with the cross arms, and means to raise and lower said lifting bar, for the purpose set forth. 7th. In combination, a track, a carriage to travel thereon, means to move said carriage upon said track, a lifting bar connected with said carriage, a series of cross arms engaged with the lifting bar, depending devices connected with the cross arms, and means to raise and lower said lifting bar for the purpose set forth. 8th. In combination, a lifting bar, a track, pulleys connected with said bar and track, a lifting rope or cable engaged upon said pulleys, a series of cross arms connected with said bar, provided with fastening devices at their extremities, and rods to engage the lifting device towards its extremities, for the purpose set forth.

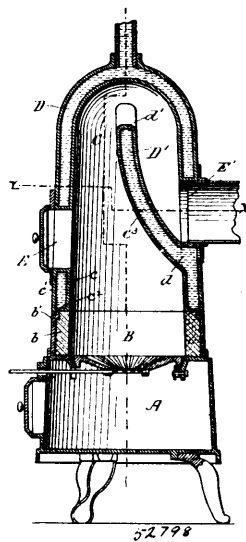
**No. 52,797. Lifting Device. (Appareil pour soulever.)**



David N. Butterfield, New Boston, New Hampshire, U.S.A., 2nd July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—The combination of a truck mounted upon axles and detachably secured to one of said axles as by a king-pin a double windlass arranged transversely of the truck at the rear thereof and carrying two chains, a windlass arranged longitudinally of the truck at the front thereof and carrying a single chain, a carrier consisting of a separate platform adapted to be detachably connected to said chains, and independent means for operating said windlasses, substantially as described.

**No. 52,798. Water Heater. (Chaudière d'eau.)**



The Magee Furnace Company, Boston and Chelsea, assignee of Frank Albert Magee, Wenham, both of Massachusetts, U.S.A., 3rd July, 1896; 6 years. (Filed 19th October, 1895.)

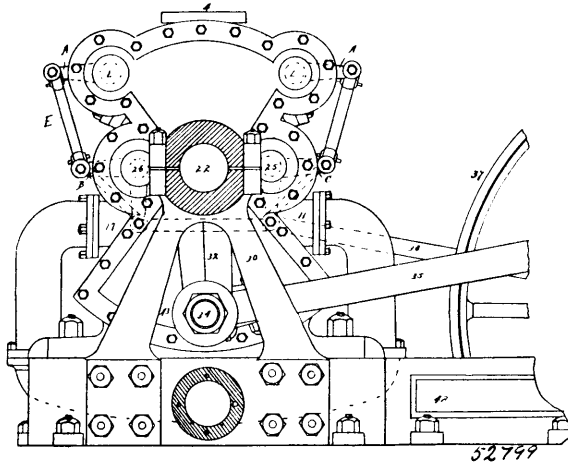
*Claim.*—1st. The combination in a hot water heater of the inlet pipe F, the water chamber D conical in shape surrounding the combustion chamber, the water chamber D<sup>1</sup> extending almost vertically from the lower part of the combustion chamber below the escape port E<sup>1</sup> to the upper part thereof, connected at its sides with the water chamber D, and the outlet F<sup>1</sup>, as and for the purposes described. 2nd. The combination in a hot water heater of the water chamber D surrounding the fire-pot and combustion chamber and the water chamber D<sup>1</sup> extending from the lower back portion of the combustion chamber to the upper central portion thereof, connected with the water chamber D at the sides, and having a curved top, as and for the purposes described. 3rd. The combination in a hot water heater of the water chamber D, conical in shape and the water chamber D<sup>1</sup> extending vertically through the combustion chamber and cast integral therewith, as and for the purposes described. 4th. A hot water heater provided with a combustion chamber enclosed by a water heating chamber preferably somewhat conical, and having one or more water inlets at its bottom and one or more outlets at the top, and a water heating chamber in the combustion chamber extending across the same from side to side and from below the escape port, connecting with the main water heating chamber, and the walls of which form a dividing and deflecting partition in the combustion chamber.

**No. 52,799. Steam Engine. (Machine à vapeur.)**

Alonzo W. Eldredge and Michael Morrissey, both of Big Rapids, Michigan, U.S.A., 3rd July, 1896; 6 years. (Filed 15th May, 1896.)

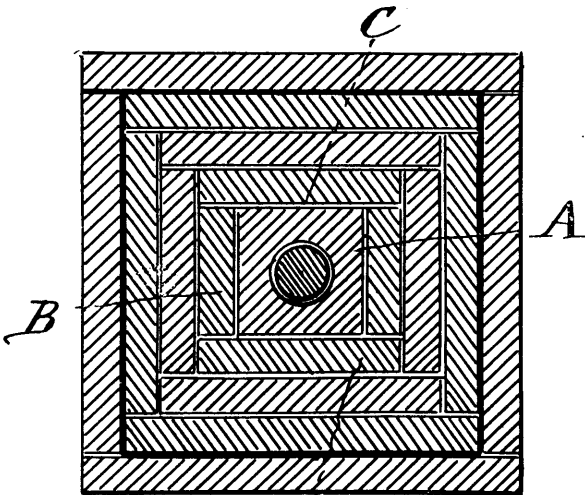
*Claim.*—1st. In a compound steam engine, the combination of a steam chest, a cylinder composed of two chambers of unequal size, an oscillating piston journaled on a shaft, journaled intermediate said chambers, and having its shorter end fitted in the smaller chamber and its longer end in the larger chamber, ports connecting

the steam-chest with the smaller chamber upon opposite sides of the piston, oscillating valves arranged in said steam-chest for alter-



nately admitting steam to said ports, ports arranged intermediate, the two chambers of the cylinder upon opposite sides of the piston, oscillating valves controlling said ports for alternately conveying steam from the smaller chamber to the larger, and means for simultaneously operating the valves in the steam chest and intermediate ports, substantially as described. 2nd. In a compound engine, the combination of a cylinder composed of two chambers of unequal size, a piston oscillating in said chambers, a steam-chest connected with the smaller chamber on opposite sides of the piston by-ports, oscillating valves 6 journaled on valve-stems in said chest, valves M and N controlling passages connecting said chambers on opposite sides and provided with valve stems 25 and 26, a connecting rod D connecting the bell-cranks, the connecting rods E and F, the bell-cranks pivoted on the shafts 25 and 26, a drive-shaft, and eccentric mounted on the drive-shaft, and the eccentric rod 38 actuated thereby, substantially as described.

**No. 52,800. Pile. (Pilotis.)**

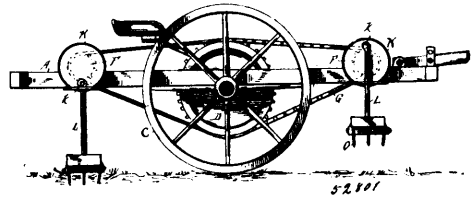


The Teredo-proof Pile Company, San Francisco, assignee of Robert B. Markle, Westport, both in California, U.S.A., 3rd July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. A pile composed of alternately overlapping sections secured together at right angles with each other, substantially as described. 2nd. A pile composed of alternately overlapping sections secured together at right angles, and having a preservative compound interposed between adjoining series, substantially as described. 3rd. A pile composed of alternately overlapping sections secured together at right angles, said sections being made in lengths, having the adjacent abutting end joints at a distance from each other, substantially as described. 4th. A pile built up of strips arranged at right angles and secured together in successive series so as to overlap, and having a layer of tar paper interposed between the external series and the adjoining inner series, substantially as set forth.

**No. 52,801. Stock and Weed Chopper.**

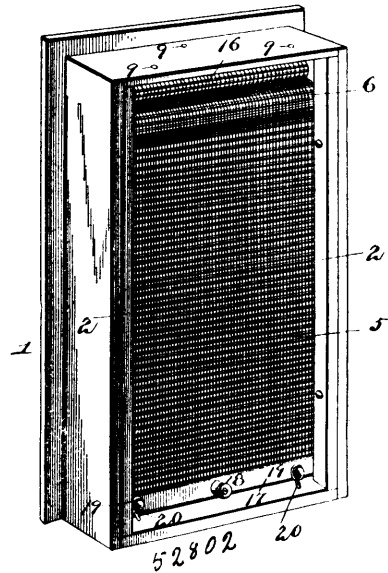
(*Coupe-tige et mauvaise herbe.*)



James M. Flower and Everett G. Morton, both of Potts Station, Arkansas, U.S.A., 3rd July, 1896; 6 years. (Filed 11th June, 1896.)

*Claim.*—1st. In a stalk-chopper, the combination with the shoe carrying cutting-knives, a recess in said shoe, follower working therein, pitman connected to said follower, of the bolts Q having their lower heads seated in the said shoe, their shank portions passed through apertures in the follower, and the spring interposed between the lower face of the follower and the bottom of the said recess of the shoe, and means for operating the pitman, all substantially as shown and described. 2nd. In combination with a shoe of a stalk-chopper as described, the knives O, having upturned rounded ends, the bolt S holding the said knives to said shoe, the outer knives being inwardly inclined, substantially as shown and for the purpose set forth.

**No. 52,802. Window Screen. (Store de fenêtre.)**

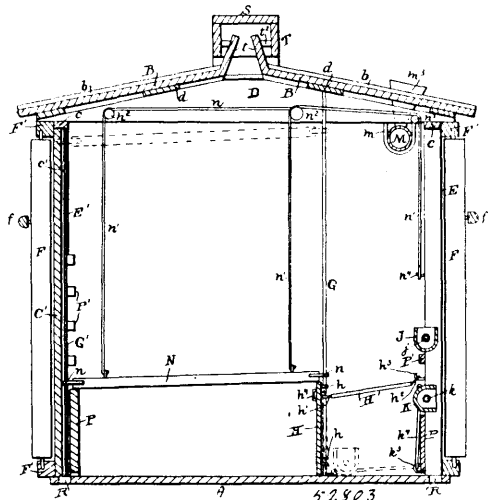


William Scott, Leavenworth, Kansas, U.S.A., and Frank P. Hanscom, Sioux Falls, S. D., 3rd July, 1896; 6 years. (Filed 10th June, 1896.)

*Claim.*—1st. In a window-screen apparatus, the combination of a supporting-strip provided with notches, turn-buttons or rotary clips for engagement with said notches to secure the strip to the top of a frame, a spring-actuated roller mounted in brackets depending from the extremities of the supporting-strip, said roller having a screen secured thereto, guides for the lateral edges of the screen, and means for securing the lower end of the screen when extended, substantially as specified. 2nd. In a window-screen apparatus, the combination of a supporting-strip, means for detachably securing the same to the top of a frame, a spring-actuated roller mounted in the brackets depending from the extremities of the supporting-strip, a flexible guard comprising a plurality of layers or strips secured to the under surface of the supporting-strip and arranged with their free lower edges in contact with the surface of the screen upon the roller, guides for the lateral edges of the screen, and means for securing the same in its extended position, substantially as specified. 3rd. In a window screen apparatus, the combination of a supporting-strip and means for securing the same to the top of a frame, brackets depending from the supporting-strip, one of the brackets being provided with an integral inwardly-extending collar, a spring-actuated roller having its spring-armor seated in said bracket within the collar whereby the locking pawls for maintaining the spring at the desired tension are held in their retracted positions, a screen secured to the roller, guides for the lateral edges of the screen, and means for securing the same in its extended position, substantially as specified. 4th. In a window-screen apparatus, the combination of a

supporting-strip provided with terminal depending brackets, means for securing the supporting-strip to a frame, a spring-actuated screen-roller mounted in said brackets, parallel inner and outer guide-strips arranged upon opposite sides of the plane of the screen with their contiguous edges separated to form a guide, flexible strips secured to the outer guide-strips and bearing at their edges against the surface of the screen, and means for securing the screen in its extended position, substantially as specified.

**No. 52,803. Stock Car. (*Char à bestiaux.*)**



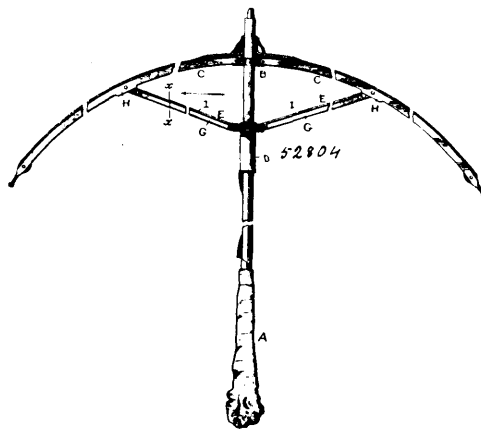
William Clime, Daniel Dietrich Good and Samuel Benjamin Bitzer, all of Lancaster, Pennsylvania, U.S.A., 3rd July, 1896; 6 years. (Filed 10th June, 1896.)

*Claim.*—1st. The combination, in a stock-car, of manger partitions located on the floor of the car, said partitions and the side of the car forming a passage-way, feed-boards, adapted to be extended entirely across said passage-way, and means for detachably securing the feed-boards in such extended position, for the purpose specified. 2nd. The combination, in a stock-car, of manger partitions located on the floor of the car, said partitions and the side of the car forming a passage-way, feed-boards hinged by one edge to a side of said passage-way, the feed-boards being adapted to be extended across the passage way, and means for detachably securing the swinging edges of the feed-boards to the side of the passage-way opposite to that to which they are hinged, for the purpose specified. 3rd. The combination, in a stock-car, of sheeting secured to the inner faces of the lower portions of the side posts, manger partitions located on the floor of the car inside of the sheeting, said partitions and sheeting forming a passage-way, feed-boards hinged by one edge to a side of said passage-way, the feed-boards being adapted to be extended across the passage-way, and means for detachably securing the swinging edges of the feed-boards to the side of the passage-way opposite to that to which they are hinged, for the purpose specified. 4th. The combination, in a stock-car, of vertical rods set in from the side thereof, manger-partitions having rings or staples engaging said rods, the manger partitions being constructed to be elevated toward the roof of the car, means for securing said manger partitions in an elevated position, feed-boards having one edge hinged to the sides of the manger partitions, the feed-boards being adapted to be extended across the passage separating said manger partitions from the side of the car, and means for detachably securing the swinging edges of the feed-boards to the side of the car, substantially as and for the purpose specified. 5th. The combination, in a stock-car, of vertical rods set in from the thereof, manger partitions on each side of the car-door, having rings or staples engaging said rods, the manger partitions being constructed to be elevated toward the roof of the car, means for securing said manger partitions in an elevated position, feed-boards having one edge hinged to the sides of the manger partitions, the feed-boards being adapted to be extended across the passage separating said manger partitions from the side of the car, means for detachably securing the swinging edges of the feed-boards to the side of the car, doors hinged to and between the vertical rods adjacent to the inner ends of the manger partitions and adapted to be elevated with said partitions, vertical rods on the door-posts, a feed-board having rings engaging said rods on the door posts, and constructed to be raised and held in an elevated position, said feed-board being adapted to be extended across the passage separating the car-door and the doors between the manger partitions, and means for detachably securing the swinging edge of said feed-board to the doors between the manger partitions, substantially as and for the purpose specified. 6th. The combination, in a stock-car, of vertical guide rods at the heads of the stalls, posts at the rear of the stalls, having vertical grooves therein, guide-rods located in said grooves, bars forming stall partitions, staples on the ends of the stall partitions and engaging said

rods, means for supporting the stall partitions in their normal positions, and means for elevating the said stall partitions, for the purpose specified. 7th. The combination, in a stock-car, of a manger partition set in from the side of the car, bars forming stall partitions and having their front ends resting on the manger partitions and their other ends supported at the rear of the stalls, vertical rods adjacent to the manger partitions, similar rods located in vertical grooves in the side posts at the rear of the stalls, staples on the ends of the stall partitions engaging the vertical rods, and means for elevating the stall partitions, for the purpose specified. 8th. In a stock-car, the combination, with vertical rods set in from one side of the car, of similar rods located adjacent to the posts on the other side of the car, manger partitions extending lengthwise of the car and having rings or staples engaging the vertical rods set in from the side of the car, said manger partitions being adapted to be elevated toward the roof of the car, means for securing the manger partitions in an elevated position, sheeting secured to the lower parts of said posts, bars forming stall partitions and having rings or staples engaging said vertical rods, the bars resting on said manger partitions and sheeting, said bars being adapted to be elevated toward the roof of the car, and means for securing the bars in an elevated position, for the purpose specified. 9th. In a stock-car, the combination, with vertical rods set in from one side of the car, of similar rods located adjacent to the posts on the other side of the car, manger partitions extending lengthwise of the car and having rings or staples engaging the vertical rods set in from the side of the car, said manger partitions being adapted to be elevated toward the roof of the car, means for securing the manger partitions in an elevated position, sheeting secured to the lower parts of said posts, bars forming stall partitions and having rings or staples engaging said vertical rods, the bars resting on said manger partitions and sheeting, pulleys located above said bars, cords connected with the bars beneath the pulleys, the cords of each bar passing in the same direction over the pulleys above it and being there united and carried over a pulley at the side of the car, and means for securing the united ends of the cords, substantially as and for the purpose specified. 10th. The combination in a stock-car, of manger partitions located on the floor of the car, said partitions and the side of the car forming a passage-way, feed-boards hinged by one edge to a side of said passage-way, the feed-boards being adapted to be extended across the passage-way, means for detachably securing the swinging edges of the feed-boards to the side of the passage-way opposite to that to which they are hinged, and a feed-chamber opening into the passage-way between the manger partitions and the side of the car, for the purpose specified.

**No. 52,804. Ribs, etc., for Umbrellas.**

(*Bâcles de parapluie.*)



Randolph P. Hull, Henry K. Beck and Hattie M. Hawley, all of Norwalk, Ohio, U.S.A., 3rd July, 1896; 6 years. (Filed 1st June, 1896.)

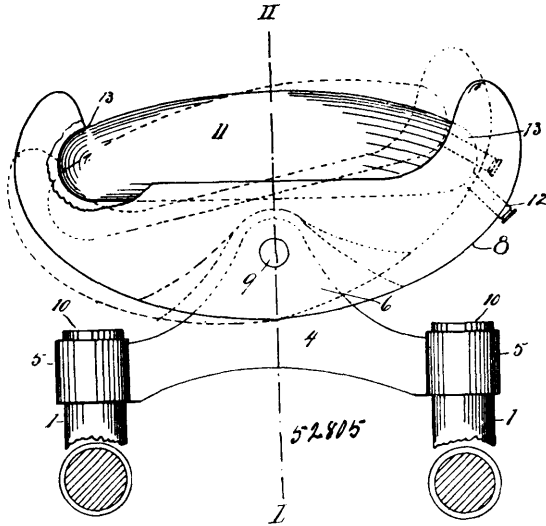
*Claim.*—1st. In an umbrella, the channelled rib C provided with the integral thickened ears H, H, combined with a solid T-shaped stretcher provided with a tenon which is fitted between said thickened ears, and a pin passing through said ears and tenon, substantially as and for the purposes described. 2nd. In an umbrella, the solid T-shaped stretcher having its transverse integral head provided with a concave outer face, and also provided with a tenon which projects beyond the head, combined with a rib having ears and a pin which passes through the ears and the tenon, substantially as and for the purposes described.

**No. 52,805. Crutch. (*Béquille.*)**

David Joseph Kennelly, assignee of Frederick August Lund, both of Los Angeles, California, U.S.A., 3rd July, 1896; 6 years. (Filed 28th May, 1896.)

*Claim.*—1st. In a crutch the standards connected at their upper ends by a bracket having a flat cone-shaped extension, in combination

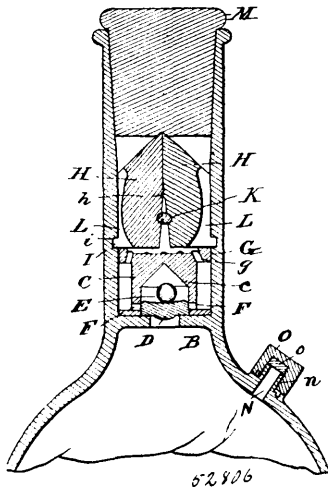
with an arm-rest having a recess into which the extension on the bracket extends, said extensions having pivoted connection near its



apex with the arm-rest, substantially as set forth. 2nd. In a crutch the combination of the standards, the movable sleeves on the standards, screw-threaded collars on the sleeves, movable clamping plates, a hand rest, caps on the ends of the hand-rest, cores set within the ends of the caps, right and left threaded bolts on said cores adapted to engage the threaded collars, and annular recesses surrounding the bolts into which the collars extend, substantially as set forth. 3rd. In a crutch the combination of the body of the crutch, a ferrule on the lower end, a reversible foot-piece journaled to the ferrule, notches in the foot-piece, and a locking lever adapted to engage said notches and lock the foot-piece, substantially as set forth. 4th. In a crutch the combination of the body of the crutch, a ferrule on the lower end of the body, legs on the ferrule, a foot-piece pivoted to the legs and adapted to turn between the same, notches on the foot-piece, a locking lever fulcrumed to one of the legs, a lug on the lever adapted to engage the notches, a pin on the opposite end of the lever, a thumb-piece on the outer end of the pin, and a spring adapted to hold the lever in engagement with the reversible foot-piece, substantially as set forth.

**No. 52,806. Non-refillable Vessel.**

(Appareil pour empêcher le remplissage des vaisseaux.)



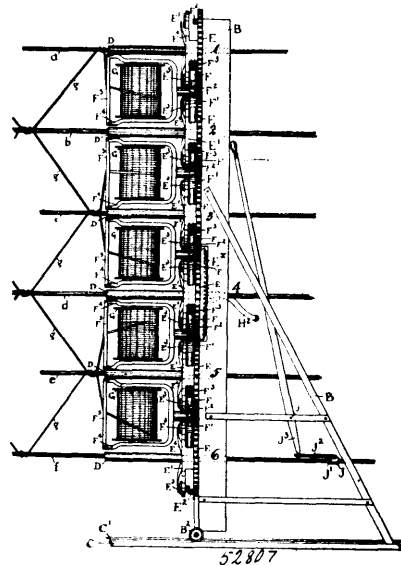
Elias Arthur Jukes, St. Catharines, Ontario, Canada, 3rd July, 1896; 6 years. (Filed 1st April, 1896.)

Claim.—1st. The combination with a vessel, of an annular seat within its mouth, a valve seating therein, a valve block having a chamber for containing the valve with lateral apertures for the escape of liquid from said chamber and a pusher within the chamber for holding the valve to its seat, substantially as described. 2nd. The combination with a vessel of a valve block located in the exit opening thereof and having an internal chamber with a conical domed top and lateral exit openings leading from said chamber, of a valve seating in the bottom of said chamber to prevent the entry of liquid into the vessel, the walls of said valve when seated bridging the lateral apertures in the valve block, substantially as

described. 3rd. The combination with a vessel, of a valve block located in the exit aperture thereof and having an internal chamber with a conical or domed top with lateral apertures leading therefrom and external annular enlargements at the top and bottom with passages through the upper enlargement, a valve working in the chamber within the valve block and bridging the lateral apertures when seated, and a spherical pusher located in the chamber above said valve, substantially as described. 4th. The combination with a vessel having an inwardly projecting annular seat or shoulder in its exit aperture, and a valve block resting therein and having an internal chamber with a domed or conical top and lateral apertures leading from said chamber in proximity to the base of the block, of a valve working within said chamber and seating on the annular shoulder of the vessel, said valve being of sufficient thickness to bridge the lateral apertures in the block, and a spherical pusher located within the chamber above the valve, substantially as described. 5th. The combination with a vessel and the valve located in the exit aperture thereof, of a retainer for holding said valve in place, consisting of semi-cylindrical sections pivoted together and having projections at the lower end co-operating with recesses in the walls of the vessel, substantially as described. 6th. The combination with the vessel and the valve located in the exit aperture thereof, of the retainer for holding said valve in place, consisting of the semi-cylindrical sections pivoted together and having the projections at the lower end co-operating with recesses in the walls of the vessel and the expander for holding said sections extended within the mouth of the vessel, substantially as described. 7th. The combination with the vessel and the valve located in the exit aperture thereof, of the retainer for the valve, consisting of the semi-cylindrical sections pivoting together and having the spiral passages therein, and the enlargement at the lower end co-operating with recesses in the vessel and the expander for holding said sections extended.

**No. 52,807. Wire-Fabric Machine.**

(Machine pour la fabrication des tissus métalliques.)

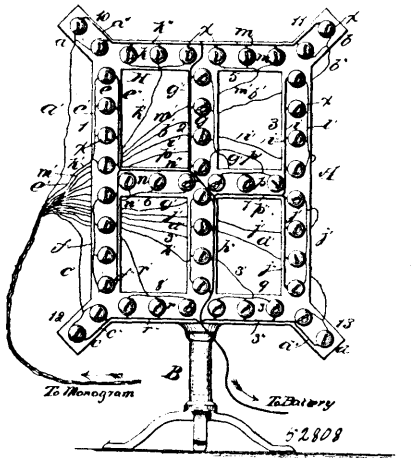


Willie DeLano Whitney, Clarendon, New York, U.S.A., 3rd July, 1896; 6 years. (Filed 12th September, 1895.)

Claim.—1st. In a machine for making wire-fabric, the combination of a series of rotary supports, a series of spool carriers having spools thereon, co-operating projections and recesses between the carriers and supports, and latch devices for holding the carriers on the supports when the latter are moved in one direction relatively, substantially as described. 2nd. In a machine for making wire-fabric, the combination of a series of rotary supports, a series of spool carriers and spools thereon, co-operating projections and recesses between the carriers and supports, and reversely-operating latch devices between the opposite sides of the spool carriers and the adjacent supports, substantially as described. 3rd. In a machine for making wire-fabric, the combination of a series of rotary supports, a series of spool carriers and spools thereon, co-operating projections and recesses between the carriers and supports, and automatic carrier-transferring and holding devices, substantially as described, between the supports and opposite sides of the spool carriers, said transferring devices embodying latches and co-operating engaging parts, which are reversed on opposite sides of the carrier, whereby the carriers will be transferred from one support to the next one when the latter are rotated in one direction, and the latches will yield and permit their passage without transferring when moving in the opposite direction, substantially as described. 4th. In a wire-fabric machine, the combination with a series of rotary supports, each having two

latches, of a series of spool carriers having reversed recesses and inclines on opposite sides for the engagement of the latches on the supports, substantially as described. 5th. In a wire-fabric machine, the combination with a series of rotary supports, the adjacent ones moving in opposite directions, of a series of spool carriers and reversed latch connections between opposite sides of the carriers and the adjacent supports, whereby the carriers will be transferred from one support to another when rotated in one direction and back again when rotated in a reverse direction, substantially as described. 6th. In a wire-fabric machine, the combination with two or more rotary supports connected for operation in opposite directions, of a spool carrier and reversed latch connections between opposite sides of said carrier and supports, substantially as and for the purpose specified. 7th. In a wire-fabric machine, the combination with a series of rotary supports, having intermeshing gears and apertures for the passage of warp wires, of a series of spool carriers and reversed latch connections between opposite sides of the carriers and adjacent supports, substantially as described. 8th. In a wire-fabric machine, the combination with a series of rotary supports having apertures for the passage of warp wires, and intermeshing gears, of a series of spool carriers, co-operating projections and recesses on the carriers and supports and reversed latch connections, substantially as described, between opposite sides of the carriers and adjacent supports, whereby the alternate supports will move the carrier around the warp wires when operated in one direction, and when operated in the other direction the carriers will be transferred to the supports intermediate those first operating them, substantially as described. 9th. In a wire-fabric machine, the combination with the main frame, having a series of tubes, and a series of gears on the tubes, having the latches and recesses or sockets, of a series of spool carriers, having the reversed inclines and slots co-operating with the latches, and the spool-frame adapted to bear against the tubular extensions on the main frame, substantially as described. 10th. The combination with the intermeshing gears, each having the outer plate, studs and latches thereon, of the spool carriers having the reversed slots and inclines on opposite sides, and the grooves co-operating with the studs on the gears, substantially as described. 11th. In a wire-fabric machine, the combination with the main frame, the extensions thereon and the rotary supports, of the spool carriers and automatic transferring devices, substantially as described, between the opposite sides of the supports and of the carriers, bearing surfaces on the carriers engaging the extensions on the frame, and co-operating holding recesses and projections between the supports and carriers, substantially as described.

**No. 52,808. Electric Signalling Apparatus.**  
(Appareil de signal électrique.)

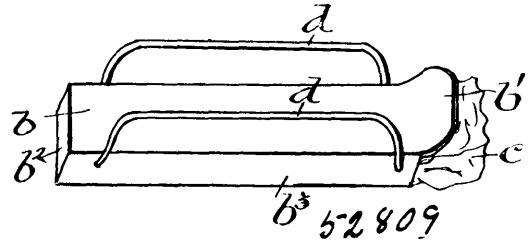


Lucien Stephen Crandall, New York, State of New York, U.S.A., 3rd July, 1896; 6 years. (Filed 29th November, 1895.)

Claim.—1st. The combination with a monogrammic display-frame of rectangular form, and having central cross-bars and corner extensions, and also having series of incandescent lamps disposed thereon, of a key-board comprising a series of spring-controlled key-bars, each having a series of contact points, a contact-board comprising a series of insulated contact-bars, a battery and electrical connections between the battery and display-frame, between the battery and key-board, and between the contact-board and display-frame, substantially as described. 2nd. The combination with a display-frame having series of incandescent lamps disposed thereon, of a key-board comprising a series of spring-controlled key-bars, each having a series of contact-points disposed longitudinally thereof, an oscillating contact-board comprising a series of insulated contact-bars arranged transversely of the key-board, whereby is insured a practically simultaneous making of all of the contacts by any key, a battery, and electrical connections between the battery and display-frame, between the battery and key-board, and between the contact-

board and display-frame, substantially as described. 3rd. The herein described monogrammic display-frame, consisting of end and side bars, central bisecting cross-bars and corner extensions, the respective bars having disposed along their lengths illuminable signalling devices, whereby on the one device the several letters of the alphabet or other pre-determined symbols may be produced, substantially as described.

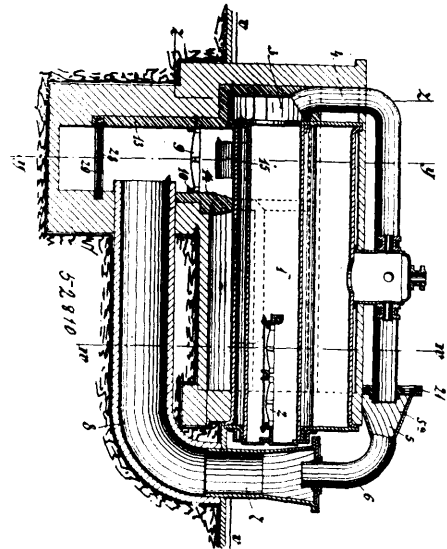
**No. 52,809. Moistener.** (Appareil à humecter.)



Henry Urquhart Beck, John Robert Meadowcroft, and Walter John Gordon Proctor, all of Montreal, Quebec, Canada, 3rd July, 1896; 6 years. (Filed 16th April, 1896.)

Claim.—1st. A portable moistener having retainers for attaching same to the finger and a rest or guard at its forward end, substantially as and for the purpose set forth. 2nd. A portable moistener comprising a holder formed from an oblong sheet of metal having forward and rearward projections, the sides and rearward projection thereof being turned downwardly, and the downward turned sides being turned inwardly, an absorbent carried by such holder, and two lengths of wire secured at their end to such holder and bent to form retainers, for the purpose set forth.

**No. 52,810. Smoke consuming Furnace.**  
(Foyer fumivore.)



Porfire Antonovitch Archipenko, Kieff, Russian Empire, 3rd July, 1896; 6 years. (Filed 4th May, 1896.)

Claim.—1st. A smoke consuming furnace, consisting of a tube conduit disposed behind the fire grate and interrupted in its length or provided with openings for admitting air, which conduit ends below a subsidiary grate, substantially as set forth. 2nd. In a smoke consuming furnace as described, a tube conduit composed of single tubes the ends of which jut into the funnel-like shaped mouth of the next tube, whilst the interstices between the two ends are closed by a perforated ring plate, the latter being covered by a reciprocally perforated turning plate, substantially as set forth.

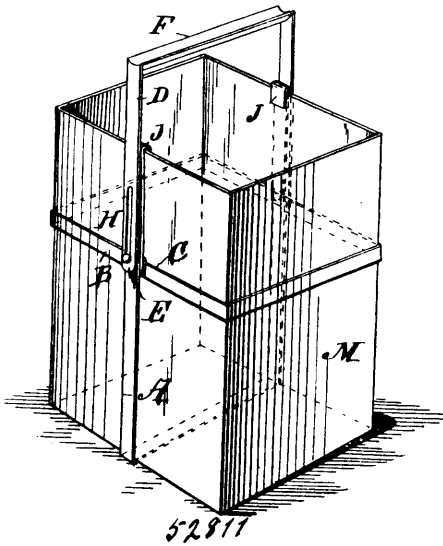
**No. 52,811. Combination Handle and Support for Cans and Cases.** (Anse et support pour bidons et boîtes.)

Theodore William Hickson, Point Nepean Road, Brighton, Victoria, Australia, 3rd July, 1896; 6 years. (Filed 18th May, 1896.)

Claim.—1st. A can frame holder, consisting of the combination of a band, passing around the can in a direction parallel to the plane of the base, and fitting snugly thereon, and carrying pivot pins on opposite sides thereof, the bands being in halves which are hinged

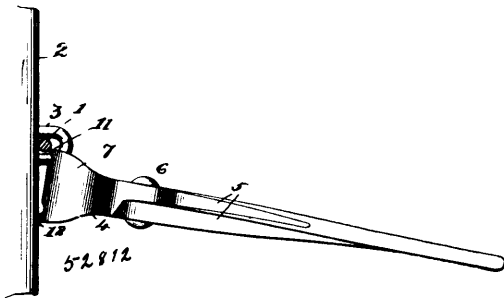


together to said pins, a single supporting strip A, passing from one pivot to the other down opposite sides of the can and centrally under



the base thereof, and a handle having slotted ends, in which fit said pins and passing over the top of the can, the said band, strip and handle being loosely connected together by the pins. 2nd. The combination with a can frame holder as described, of a strip J with or without a disc K centered thereon, the end of strip or its disc being adapted to be turned over to clasp the can substantially as and for the purposes set forth.

**No. 52,812. Staple Puller. (Arrache-crampe.)**

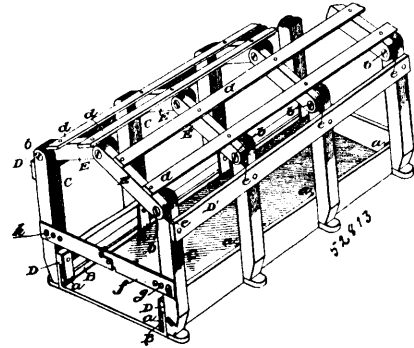


Albert H. Russell, Mount Washington, Missouri, U.S.A., 3rd July, 1896; 6 years. (Filed 26th May, 1896.)

*Claim.*—1st. A staple puller consisting of the pivoted members, the oppositely disposed jaws thereon and recesses in said jaws of such depth that when the jaws are closed the opposing edges of the recesses will close upon and grasp the prong of the staple before the meeting edges of the jaws come together, substantially as set forth. 2nd. A staple puller adapted to grasp a single prong of the staple above or below the wire and consisting of the pivoted members, the oppositely disposed jaws thereon, the recesses in said jaws of such depth that when the jaws are closed the opposing edges of the recesses will close upon and grasp the prong of the staple before the meeting edges of the jaws come together, and the points on the jaws beyond the recesses to press the wire aside and permit engagement with the prong of the staple, substantially as set forth. 3rd. A staple puller adapted to grasp a single prong of the staple above or below the wire and consisting of the pivoted members provided with the oppositely disposed jaw recessed to such depth that when the jaws are closed the opposing edges of the recesses will close upon and grasp the prong of the staple before the meeting edges of the jaws come together and points formed on said jaws by the excision of said recesses adapted to press aside the wire and permit engagement of the prong of the staple in said recess, substantially as set forth. 4th. A staple puller consisting of the pivoted members provided with oppositely disposed jaws and points on said jaws formed by the excision of recesses in the meeting edges of the jaws whereby it is adapted to engage the staple above or below the wire, substantially as set forth. 5th. A staple puller consisting of the members 5 pivoted together at 6, the oppositely disposed jaws 7, on said members, the recesses 8, in the meeting edges of said jaws of such depth that when the jaws are closed the opposing edges of the recesses will close upon and grasp the prong of the staple before meeting edges of jaws come together, and the points 10 formed on said jaws by the

excision of the recesses and adapted to press aside the wire and permit the engagement of the prong of the staple in said recesses, substantially as set forth.

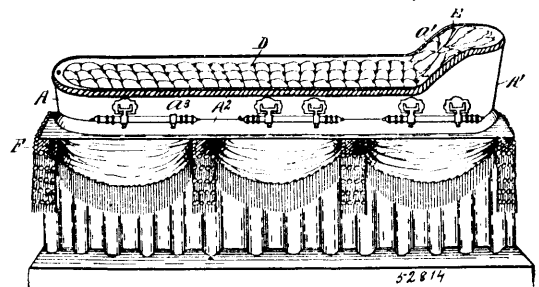
**No. 52,813. Adjustable Folding Vehicle Top. (Ciel pliant adjustable pour dessus de voiture.)**



Edward Lenney, Potsdam, New York, U.S.A., 3rd July, 1896; 6 years. (Filed 30th May, 1896.)

*Claim.*—1st. The herein described removable and adjustable vehicle top comprising two side frameworks, and a roof composed of two sections pivoted together at one end and at the opposite end to the side frameworks, substantially as described. 2nd. The herein described removable and adjustable vehicle top comprising a series of uprights or posts secured to the vehicle body and a series of top ribs each formed in two sections pivoted together at the centre or apex of the top and at their opposite ends to the uprights or posts, substantially as described. 3rd. The herein described removable and adjustable vehicle top comprising a series of uprights or posts secured to the vehicle body provided near their upper ends with inclined shoulders, and a series of top ribs each formed in two sections pivoted together at the centre or apex of the top and at their opposite ends to the uprights or posts and supported on said shoulders, substantially as described. 4th. A wagon top comprising upright posts or standards and cross-slats forming side frames and engaging the inside rail of the vehicle, a roof composed of two sections each composed of a series of ribs and cross-slats, the ribs being hinged together and to the uprights whereby the top may be adjusted, folded and removed, substantially as described.

**No. 52,814. Burial Casket. (Cercueil.)**



William C. Lautner, Detroit, Michigan, U.S.A., 3rd July, 1896; 6 years. (Filed 1st June, 1896.)

*Claim.*—1st. In a burial casket, a base having an upwardly projecting portion at the head thereof, and a removable cover, substantially as set forth. 2nd. In a burial casket, a base having an upwardly projecting portion at the head thereof, and a removable cover, the meeting edges of the base and cover below the upward projection at the head being intermediate the upper edge of the shell of the cover and the lower edge of the shell of the base whereby when the cover is removed the base will have the appearance of a couch, substantially as set forth. 3rd. In a burial casket, a base having a raised portion at the head, and a correspondingly-shaped removable cover, the shells of said base and cover below the raised portion of the base meeting midway between the upper edge of the shell of the cover and the lower edge of the shell of the base, and on a horizontal plane, substantially as set forth. 4th. In a burial casket, a base having a raised portion at the head thereof and formed with a panel *a*<sup>3</sup>, and a removable cover formed with a panel *b*<sup>3</sup>, the meeting edges of the base and cover below the raised portion of the base being on a horizontal plane and intermediate the upper edges of the panel of the cover and lower edges of the panel of the base, substantially as set forth. 5th. In a burial casket, a base having an upwardly projecting portion at the head thereof, a removable cover, a moulding about the upper edge of said base concealing the union of the cover with the base, handles attached to the base, and drapery to conceal the handles, substantially as set forth. 6th. A burial

casket consisting of a base, having an upwardly projecting portion at the head thereof, a cover, fastenings toward the head of the casket longitudinally disposed and located at the incline  $b^2$ , whereby the cover may be moved longitudinally into place and thereby secure it firmly to the base, and an additional fastening at the foot of the casket to unite the cover and base the upwardly projecting portion of the base forming a shoulder or stop for the cover in moving the cover into place, substantially as set forth. 7th. A burial casket consisting of a base, having a raised portion at the head thereof, a removable cover cut-away at the head thereof to correspond to the raised head of the base, the meeting edges of the base and cover below the raised portion of the base being on a horizontal plane and intermediate the upper edges of the panel of the cover and the lower edges of the panel of the base, the meeting edges of the raised portions of the base, and of the corresponding portion of the cover provided with fastening devices whereby the cover may be united to the base, substantially as set forth. 8th. In a burial casket, the combination of a base constructed with a panel  $a^2$  projecting upward at the head thereof, to form a raised head portion, and forming a shoulder  $a^1$  at the upwardly projecting edge of the panel, and a removable cover constructed with a panel  $b^3$  cut-away at the head thereof to correspond with the raised head portion of the base, and forming a shoulder  $b^2$  corresponding to the shoulder  $a^1$  of the base, and fastening device engaged with the cover and base to secure the cover to the base, said shoulders forming a stop in moving the cover into place, whereby the fastenings of the cover and base will be caused to register, substantially as set forth.

**No. 52,815. Oar. (Rame.)**



Michael F. Davis, Detroit, Michigan, U.S.A., 4th July, 1896; 6 years. (Filed 3rd June, 1896.)

*Claim.*—1st. The combination with an oar or sweep of the handles connected with the inboard portion thereof by a universal joint. 2nd. The combination with an oar or sweep, of the plates or brackets connected together and formed with semi-circular extensions and the handles connected with said extensions, substantially as described. 3rd. The combination of the plates 8, having semi-circular extensions 9, the handles 12 secured to said extensions and the boxes 15, 16, 17, substantially as described. 4th. A sweep or oar made in two parts, the loom or outward portion being of wood, and the inboard portion being hollow and curved and made of metal, and said parts being firmly connected together at a point which in use comes near the row lock, substantially as described. 5th. A sweep or oar made in two parts, the loom or outward portion being of wood, and the inboard portion being hollow and made of metal and said parts firmly connected together, and the handles pivotally connected with the curved end of the inboard portion, substantially as described. 6th. A sweep or oar made of wood and metal in manner set forth and having its metal inboard portion secured to and on the wooden outboard portion, as described, and provided at its inboard end with a movable handle part adapted to have vertical or horizontal movements with relation to the oar, substantially as described.

**No. 52,816. Oar. (Rame.)**



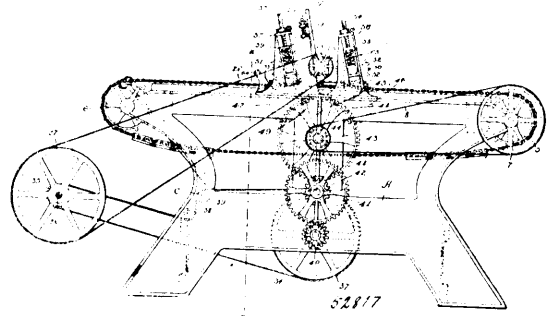
Michael F. Davis, Detroit, Michigan, U.S.A., 4th July, 1896; 6 years. (Filed 3rd June, 1896.)

*Claim.*—1st. The combination with a row lock, having the usual uprights and an outward extending projection on the outward portion of one, of an oar provided with a collar on the inboard portion of the row lock section and studs or stops on the outward portion, adapted to engage respectively with the outwardly extending projection of one upright and the outer face of the other, substantially as described. 2nd. The combination with an open row lock having an outward projection or stop, of the oar having a collar on its inboard portion, and a projection on its outboard portion adapted to engage with said outwardly extending stop or projection, substantially as described. 3rd. The combination with a row lock having the usual uprights and an outwardly projecting stop on one of the uprights thereof, of an oar having on its row lock, section studs or projections on the outward portion, each provided with a non-metallic cover rotatable thereon, and adapted to engage respectively with said uprights, substantially as described. 4th. The oar or sweep having on its loom the collar B and pins, stops or projections  $c^1$   $c^2$ , combined with the row lock E, whereby the collar permits the outer movement of the oar or sweep, and the pins, stops or projections, the inner movement respectively on the feather and on the pull, substantially as described. 5th. The above described oar having on its row lock section a collar or button and at a slight distance outwardly from this, and entirely unconnected with it, stops, studs or projections adapted to engage with the uprights of a row lock, substantially as and for the purposes set forth. 6th. In a rowing apparatus, a standard secured on the gunwale of the boat, and an

upright oar lock pivoted therein, said oar lock having a projection on its outboard face, the oar provided with a collar on its inboard portion and having studs or stops on the outboard portion, and adapted to engage respectively with the outwardly extending projection of one upright of the oar lock, and with the outer face of the other upright, substantially as described. 7th. The combination with an open row lock having a projection on its outboard face, of an oar having a collar on its inboard portion, and a projection on its outboard portion adapted to engage with the said outwardly extending projections of the oar lock, substantially as described. 8th. The combination of the oar lock having the outboard projection  $c$  and the oar provided with the stop  $C^1$ , substantially as described.

**No. 52,817. Shingle Planer.**

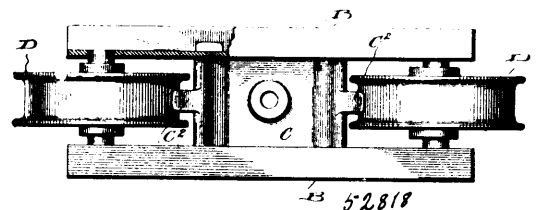
(Machine à raboter le bardeau.)



Knute Lauritz Johnston Frazer, Winona, Minnesota, U.S.A., 4th July, 1896; 6 years. (Filed 9th June, 1896.)

*Claim.*—1st. In a planer of the class described, a stockholder or traveller, comprising in combination the sectional stock bed, the lugs or guide blocks, and the adjustable wedges interposed between said sections and blocks for varying the incline of the top or bearing surface of the bed. 2nd. In a planer of the class described, a stockholder or traveller, comprising in combination, the stock bed, made up of sections, the lugs or guide blocks therefor, the interposed slotted wedges for adjusting the incline of the bed with reference to the blocks, and the screws securing said blocks to the bed and passing through the slots in said wedges. 3rd. In a planer of the class described, the combination of the longitudinal dovetail guide in the bed of the machine, the endless chains running parallel with said guide, the traveller having its bed made of transverse sections and being provided with a dovetail lug travelling in said guide, and the adjustable wedges between said lug and sections for varying the incline of the top or bearing surface of the traveller. 4th. In a planer, in combination with the guides upon the machine and the endless chains running parallel with said guides, the travellers secured to and carried by said chains, made up of flexibly connected sections, the lugs secured by said sections and travelling in said guides, and the separate adjusting means for said sections, whereby the incline of the top or bearing surface of the traveller with reference to the lugs may be varied. 5th. In a flexible carrier or traveller made up of sections having top and bottom members and means for vertically adjusting the relative position of said members. 6th. In a planer of the class described, comprising in combination the traveller having its stock bed made up of transverse sections, the link and the pin connection for said sections, the guide blocks or lugs, and the wedges interposed between said lugs and sections.

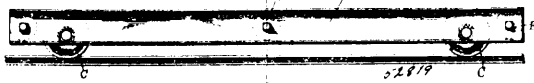
**No. 52,818. Lumber Truck. (Camion à bois.)**



Albert T. Bemis, Indianapolis, Indiana, U.S.A., 4th July, 1896; 6 years. (Filed 11th June, 1896.)

*Claim.*—1st. A lumber truck for dry-kilns, the same comprising a body portion, wheels journaled in said body portion, and fender arms connected with the body portion and serving to prevent the timber upon the truck from contacting with the wheels, substantially as described. 2nd. The herein described truck for dry-kilns, the same consisting of the body portion composed of two longitudinal pieces B, B, having wheels journaled between their ends, and a casting C secured between the side pieces B, B, intermediate of the wheels, and having its ends provided with curved fender arms  $C^2$  extending both above and below the body portion of the truck, substantially as and for the purpose described.

**No. 52,819. Lumber Truck. (Camion à bois.)**

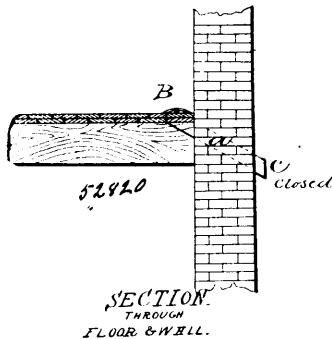


Albert T. Bemis, Indianapolis, Indiana, U.S.A., 4th July, 1896; 6 years. (Filed 11th June, 1896.)

*Claim.*—1st. In a truck for use in lumber drying kilns, two parallel sides pieces A A, the wheels, having their axles journaled in openings formed in said side pieces, the washers or separators B interspersed at intervals of the length of the truck and serving to hold the side pieces at the required distance apart, the said washers B being hollow and having central openings for the passage of a securing bolt, the thickness of the washer at the point at which the bolt passes through it being less than at the periphery of the washer, substantially as described. 2nd. A washer, designed for separating the channel steel strips forming the frame of a lumber truck of the character described, the said washer consisting of a hollow body portion having apertured ends for the passage of a securing bolt, the ends being provided with a thickened portion surrounding the central bolt opening and the length of the washer at the point at which the bolt passes through it being less than at the outer face of the washer, substantially as described.

**No. 52,820. Water Escape and Ventilator.**

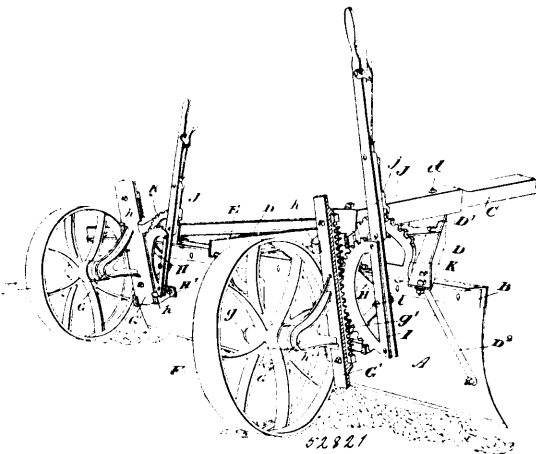
(Echappement de l'eau et ventilateur.)



Andrew B. Holmes, Scranton, Pennsylvania, U.S.A., 4th July, 1896; 6 years. (Filed 11th June, 1896.)

*Claim.*—The device for conducting water from the interior of buildings, and for ventilating the same, consisting of a pipe or boxing a, extending from the surface of the floor of the building through the wall thereof, and provided with a heading or shield B, and outside self closing valve c, substantially as and for the purpose described.

**No. 52,821. Road Planer. (Raboteur de chemins.)**

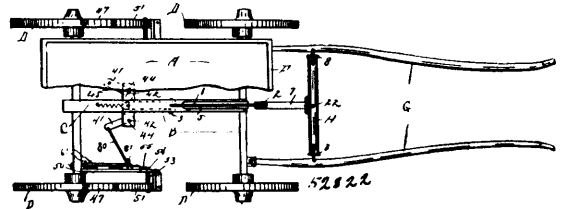


John Cussons Steel, Vaughan, York, Ontario, Canada, 4th July, 1896; 6 years. (Filed 12th June, 1896.)

*Claim.*—1st. In a road planer, the combination with the plane-iron suitably formed, secured to a suitable frame, and placed at an angle therewith, of the carrying wheels journaled in studs forming part of a bracket attached to or forming part of a vertical rack, a supporting bracket secured to the back of the planer, guiding wings forming part of the bracket and designed to receive the rack and means for raising the rack vertically within the guiding wings, as and for the purpose specified. 2nd. In a road planer, the combina-

tion with the plane-iron suitably formed, secured to a suitable frame, and placed at an angle therewith, of the carrying wheels journaled in studs forming part of a bracket attached to or forming part of a vertical rack, a supporting bracket secured to the back of the planer, guiding wings forming part of the bracket and designed to receive the rack, and a gear quadrant and lever pivoted upon the supporting bracket and operated and held in position, as shown and for the purpose specified. 3rd. In a road planer, the combination with the plane-iron suitably formed, secured to a suitable frame and placed at an angle therewith, of the carrying wheels journaled in studs forming part of a bracket attached to or forming part of a vertical rack, a supporting bracket, a strap for securing it to the plane-iron, recessed guiding wings with oppositely set grooves designed to receive the rack and means for raising the rack vertically within the guiding wings, as and for the purpose specified. 4th. In a road planer, in combination a plane-iron suitably formed, secured to a suitable frame and placed at an angle therewith, the tongue pivoted on a bracket at the apex of the converging braces, an intermediate brace, a rear plate secured to the tongue, a quadrantal plate secured to the intermediate piece and one of the braces and a bolt for securing the end plate of the tongue in any desired position on the quadrantal plate, as and for the purpose specified.

**No. 52,822. Combined Trace Releaser, Hold-Back and Brake. (Relâche traits avaloïre et frein combinés.)**

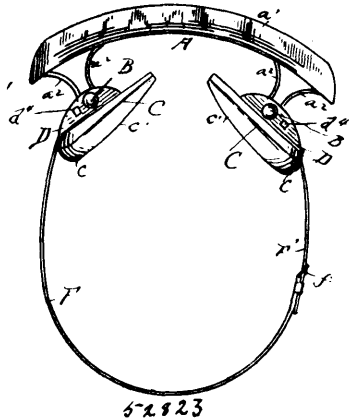


Joseph Lechner, Oswego, New York, U.S.A., 4th July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. The combination of a trace releaser, hold-back and frame, consisting of a hollow whiffle-tree attached to the shafts, clips sustained thereon and rods reciprocating therein, said clips and rods adapted to co-operate to engage with the traces, springs arranged between stops in the interior of the whiffle-tree and collars on the rods, to force said rods out of their engaging position with the traces a double spring-catch having ends arranged to engage with notches on said rods to hold said rods in their engaging position, hold-back-sleeves fitted to forwardly-projecting pins and springs on the shafts for the attachment of the hold-back straps, a brake pivotally sustained near its middle on a support attached to the vehicle-frame springs for forcing the shoe end of the brake into engagement with the vehicle-wheel, an eye on the opposite end of the brake, a rod engaging with said eye and sustained in a socket, a spring arranged between a stop and a collar for forcing said rod and the connected brake, both retained in a retracted position, out of said retracted position, a spring-catch engaging with a notch in the rod for holding said rod and brake in their retracted position, and a lever attached to the wagon-frame and having its handle arranged in a convenient position near the dashboard, said lever being connected by intermediate connections both to the whiffle-tree spring-catch and to one end of a bell-crank pivoted to the wagon-frame and having its other end connected to the brake-retaining spring-catch, substantially as described and shown. 2nd. In a combined trace releaser, hold-back and brake, a brake pivotally connected at or near its middle to a support attached to the vehicle-frame, a spring arranged to force the shoe end of said brake against the wheel, an eye at the opposite end of said brake, a rod engaging with said eye and sustained in a socket attached to the vehicle-frame, a spiral spring arranged between a stop in said socket and a collar on said rod for forcing said rod outwardly, a spring catch engaging with said rod for holding it in its inward position against the action of said spring, said spring-catch being connected to a bell-crank, and said bell-crank connected by intermediate mechanism to a lever, by means of which said spring-catch may be drawn out of engagement, substantially as described and shown. 3rd. In a combined trace releaser, hold-back and brake, a brake pivotally supported near its middle on an arm attached to the vehicle-frame, a spring attached to the same arm for forcing the shoe end of the brake against the wheel, an eye at the opposite end of the brake, a bent rod engaging with said eye, for retracting said opposite end and holding said shoe end from the wheel, and a spring-catch for holding said rod in its retracted position, and means for withdrawing said catch, and releasing said rod and brake, substantially as described and shown. 4th. In a combined trace releaser, hold-back and brake, the combination of brake 47 pivotally sustained at or near its middle 48 on a supporting arm 49, spring 51 attached to the end of the same supporting arm and forcing said brake against the wheel, a rod 55 having its outer end formed in a right-angle bend 54, engaging with an eye 53 on one end of said brake, said rod supported and reciprocating in socket 56 and normally forced outwardly by spring 59 arranged between collar 57 and stop 58, a spring catch 60 attached to the exterior of said

socket and having a bent end 62 adapted to engage with notch 63 on rod 55, and to hold said rod in its retracted position against the force of said spring 59, means for withdrawing said spring-catch and releasing said rod and brake, consisting of lever 1 pivotally supported on the wagon frame, arm 40, bell-crank 41 pivotally connected to plate 44, link 80 connecting said bell-crank to eye 81 on said spring catch 60, and spring 45 drawing rearwardly the inner end of said bell-crank, substantially as described and shown.

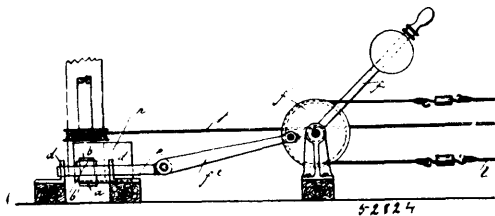
**No. 52,823. Adjustable Pack Saddle Bridge.**  
(Pont ajustable de selles.)



Gabriel François Fortier, Jeanerette, Louisiana, U.S.A., 4th July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—A cart-saddle comprising a curved channeled-plate A, having vertical sides  $a^1$ , and rounded base  $a$ , with legs  $a^2$  rounded and perforated near the base thereof, of socket-plates D, provided with a plurality of curved sockets  $d^2$ , to receive the rounded ends of the legs  $a^2$ , with side webs  $d$ , perforated concentric with said sockets, pins passing through said perforations and holding said logs in said recesses, a curved saddle-trees rigidly attached to the base of said socket-plates, and approximately fitting the back of the cart-horse, substantially as described.

**No. 52,824. Apparatus for operating and locking Railway Switches.** (Appareil pour actionner et fermer à clé les aiguilles de chemin de fer.)



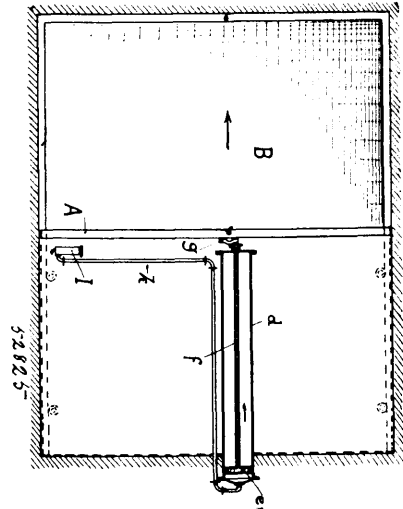
Carl Henrik Schager, Lilla Nygaten, Stockholm, and Johannes Magnus Jonasson Lundin, Warton, both in Sweden, 4th July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. In apparatus for operating and locking of railway switches, the combination of a cross-bar connected to the switch-points, a cam-plate adapted to move the said cross-bar, a switch-lever connected to the said cam-plate, a second switch-lever connected to the first-mentioned switch-lever, a cam or hook connected to a signal and adapted to hold the said cross-bar in either of its extreme position, when the signal shows "clear," and a lever for operating said signal, substantially as and for the purpose set forth. 2nd. In apparatus for operating and locking of railway switches, the combination of a cross-bar, movable in the direction of its length and adapted to move the switch-points, a cam-plate movable in the direction of the rails, and adapted to move the said cross-bar, a switch-lever adapted to move the said cam-plate, a second switch-lever provided with signs showing the position of the switch, and by means of suitable transmissions such as wire-rope connected to the first-mentioned lever, a cam or hook connected to a signal disc and catching in suitable notches in the said cross-bar so as to hold the switch-points in either of its extreme position, and a lever provided with signs showing the position of said signal-disc, and connected so as to operate the same, as and for the purposes set forth.

**No. 52,825. Apparatus for Automatically Closing or Opening Doors, etc.** (Appareil pour fermer ou ouvrir automatiquement les portes, etc.)

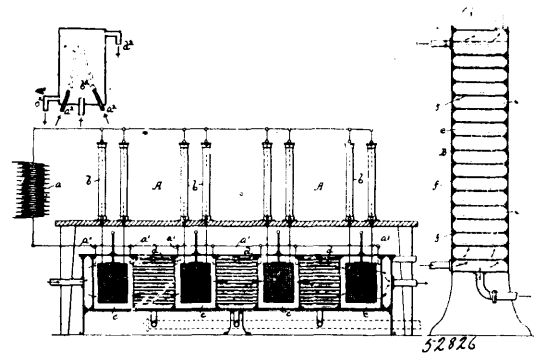
Baron Alexander von der Ropp, Berlin, Germany, 6th July, 1896; 18 years. (Filed 16th June 1896)

*Claim.*—An apparatus for closing or opening doors, and the like, wherein an easily breakable closed receptacle containing compressed



gas is broken by some external cause, such as the moistening of a paper ring, excessive heating, or actuation of a striker by an electric current, the expanding gas being made to actuate a piston in a cylinder, which piston either pushes or pulls the doors, substantially as described.

**No. 52,826. Apparatus for Sterilizing and Purifying Water.** (Appareil pour distiller et stériliser l'eau.)

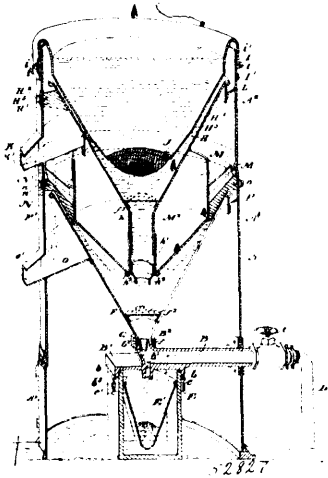


Henry Tindal, Amsterdam, assignee of Nicholas Vander Sleen, Haarlem, and August Schneller Alfen, all in Holland, 6th July, 1896; 6 years. (Filed 14th September, 1895.)

*Claim.*—1st. In an apparatus for sterilizing and purifying water by means of ozone, the combination with an ozone generator, of means for finely dividing the ozone whilst bringing it in contact with the water to be sterilized and purified, substantially as and for the purpose hereinbefore set forth. 2nd. As a means for bringing water in intimate contact with ozone, the combination of a vessel having inlets and outlets for the ozone and the water, of parts having fine openings for letting the ozone pass into the water, substantially as and for the purpose hereinbefore set forth. 3rd. In an apparatus for sterilizing and purifying water by means of ozone, the combination with a vessel having inlets and outlets for the ozone and the water, of a number of perforated plates arranged within said vessel one above the other, substantially as and for the purpose hereinbefore set forth. 4th. In an apparatus for sterilizing and purifying water by means of ozone, the combination with a vessel having at its bottom an inlet for the ozone and an outlet for the water, and at its top an inlet for the water and an outlet for the ozone, of perforated horizontal plates arranged within said vessel one above the other, and distributed over the space from the bottom to the top, substantially as and for the purpose hereinbefore set forth. 5th. In an apparatus for sterilizing and purifying water by means of ozone, the combination with a vessel having inlets and outlets for the ozone, of one or more sprays arranged within or extending into said vessel, and adapted to atomize the water to be sterilized or purified, substantially as and for the purpose hereinbefore set forth. 6th. In an apparatus for sterilizing and purifying water by means of ozone, the combination with a vessel having in its bottom an inlet for the ozone, of two or more nozzles or sprays adapted to atomize the water to be sterilized or purified, said nozzles or sprays being arranged so as to converge towards each other as well as towards the inlet for the ozone, substantially as and for the purpose hereinbefore set forth.

**No. 52,827. Method of Separating Ores.**

(Méthode de séparer le minerai.)



Edward Fearen, Maple Creek, North-west Territory, and M. Rogers Newman, assignees of Walter Thomas Newman, both of Toronto, Ontario, all of Canada, 6th July, 1896; 6 years. (Filed 30th March, 1896.)

*Claim.*—1st. The method or process for the separation of metals from their ores, which consists, essentially, in the subjection of the mass of metal-bearing material while the same is in a finely divided condition, to the action of an upwardly-moving column or head of water or other fluid element, so directed against and in connection with amalgamating surfaces that the gangue-matter and other comparatively worthless materials may be opposed by a force or velocity of movement of such column or fountain sufficient to separate and carry same away free from the valuable metallic particles, float-metals, &c., and such as will hold the latter in temporary suspension and separation until they are caught and preserved by amalgamation, substantially as set forth. 2nd. The method or process for the separation of metals from their ores, which consists, essentially, in the subjection of a mass of metal bearing material while the same is in a finely divided condition, to the action of an upwardly-moving column or fountain of water, or other fluid element, in such manner that the specific gravity of the particles of each class or grade of material in the mass is opposed by a force or velocity of movement of such column or fountain varying at different elevations and sufficient to separate and carry such different grades into individual channels to fit each of such grades of material for further and separate utilization, substantially as set forth. 3rd. The method or process for the separation of metals from their ores, which consists, essentially, in the subjection of a mass of metal-bearing material while the same is in a finely divided condition, to the action of an upwardly-moving column or head of water, or fluid element, in such manner that the particles of different specific gravities will be opposed to different degrees of force or velocity of movement of such column at different elevations, whereby each class or grade of material in the mass may be carried as separate products into different channels to fit each for further utilization, the lighter and least valuable material being carried off at the highest point or that where the least resistance is offered by the upwardly-moving column, the float metals being intermediately saved by amalgamation, the next grade of material according to its specific gravity being delivered at a lower point than the first, and so on progressively towards the inlet or source of the column where the resistance is the greatest, but such resistance being so regulated that it will not overcome the specific gravity of the heaviest and most valuable material but which will permit the same to be separated and fall through such column to the lowest point where it will be preserved, substantially as set forth.

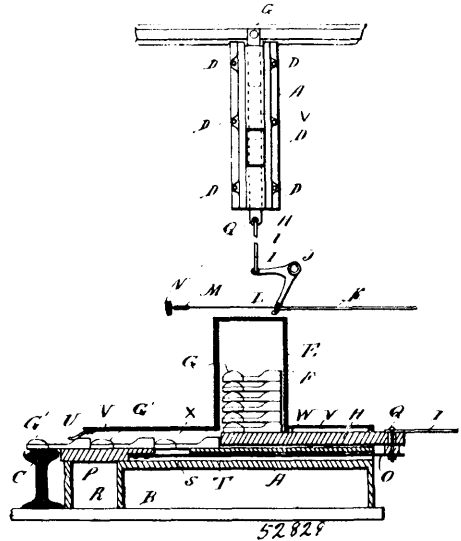
**No. 52,828. Fog Signalling Apparatus.**

(Appareil de signal de brume.)

Christopher Taylor, Sydney, assignee of Daniel Slade, Ashfield, both in New-South Wales, Australia, 6th July, 1896; 6 years. (Filed 11th May, 1896.)

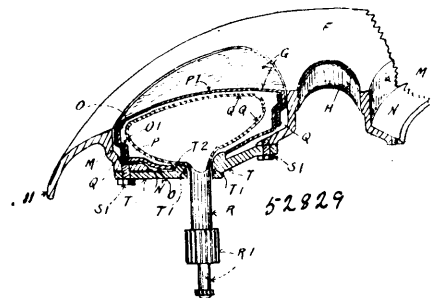
*Claim.*—1st. The improved method for fixing detonators upon railway lines, consisting mainly of the combination and arrangement with a controlling slide, or other mechanism, of detonator storage boxes or receptacles, adapted to have a detonator withdrawn therefrom, placed upon the rail and held upon said rail, on movement of said controlling slide, or mechanism, at any distance from the signal box, substantially and for the purpose set forth. 2nd. The improved method of removing and storing detonators from railway lines, consisting mainly of the use of a slide such as P, in combination with a slide such as H, which being withdrawn

allows the detonator to fall into a storage box, such as R, substantially and for the purposes set forth. 3rd. A detonator



storage box, consisting essentially of a bottomless chamber such as E, a channel such as X, a sliding bar such as H, preferably with a stop-chock such as W, a slide such as P, with connecting rod such as O, and a spring such as U, substantially as and for the purposes set forth. 4th. A detonator mount, or carrier, consisting essentially of a compressible block, such as F, to the toe of which the detonator is secured, and the height of whose heel is equal to the thickness of such detonator, substantially as herein described and as illustrated in the drawings. 5th. In apparatus for fixing detonators on rails, and their removal from same, the combination and arrangement, with a storage receptacle, such as E, having a feeding channel such as X, and a sliding bar such as H, connected with a second sliding bar such as P, operated by bell cranks such as J, and rods, or wires, such as I, K, and L, and a counterbalance such as N, substantially as herein described and illustrated in the drawing. 6th. The combination and arrangement, of mechanical parts, altogether forming an improved apparatus, for fixing detonators upon rails, and for their removal therefrom, substantially as herein described and explained, and as illustrated in the drawings.

**No. 52,829. Bicycle Seat. (Siège de bicyclette.)**

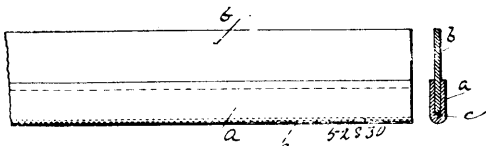


Seymour Doss Van Meter, Denver, Colorado, U.S.A., and Peter Alexander Conroy, Cornwall, Ontario, Canada, 6th July, 1896; 6 years. (Filed 1st June, 1896.)

*Claim.*—1st. A bicycle-seat comprising a cast frame having two seat portions, a horn extending in a horizontal line forward from between the seat portions having a slot in its top and a downward-curved point, a high cantle blending upward from said seat and horn portions, perforations in said seat portions having an introverted lip at their bottom edge, and an air-reservoir comprising a rubber sack with an inlet tube and valve, a suitable casing for said sack adapted to said perforations, and means for removably securing said casing in said perforations. 2nd. A cast bicycle-seat having rigid seat-portions curving upward and forming a cantle, a horn blending forward by curved lines from said seat portions in a straight line, a slot projecting through the top of said horn intermediate of its point and the said cantle, perforations through the said seat portion adapted to register with the tuber ischii of the rider, an air-holding sack having a valve-controlled inlet, a casing substantially as herein described surrounding said sack and adapted to fit said perforations even with the surfaces of said seat portions, a perforation in the bottom of said casing through which said sack is introduced into said casing, means for detachably securing said air-sack and casing

in said perforations, and an independent bridge-piece secured to said seat and arranged and adapted to close the said aperture in the bottom of said casing, substantially as described. 3rd. The combination in a bicycle-seat of a cast frame having the solid seat, an upward-curved cantle blending therefrom, a horn having a central top slot in its central portion and a solid downward-curved point, a perforation cast through the centre of each seat portion having an inverted lip at its lower end, with an air-reservoir comprising an air-containing sack, a casing surrounding said sack adapted to fit in each seat and having a metal base and a pliable top detachably secured thereto, means for securing said reservoir in said perforations, means for introducing said air-sack into said casing, the several parts being arranged and combined substantially as herein set forth and described. 4th. The combination in a bicycle-seat of the rigid seats, the upward-curved cantle-support, the horn, the perforation through said seats, the rubber air-sacks, the metal cup-piece, adapted to fit said perforations, the leather covering, means for detachably securing said covering to said cup-piece and the bridge-piece, as set forth. 5th. The combination in a rigid bicycle-seat, of a cast seat having a contour substantially as herein set forth, and having perforations through its seat portions provided with an inverted lip, independent cup-shaped pieces, of metal fitting in said perforations, means for securing said cup-pieces to said inverted lips, a row of holes in the side of said cup-pieces, leather coverings over said cup-pieces having holes registering with those in said cup-pieces, a cord adapted to pass through said holes and gather and secure by tying said leather covers to said cup-pieces, perforations in the bottom of said cup-pieces, a rubber sack having an air-inlet tube and valve adapted to pass through said apertures in said cup-pieces and fit the chamber formed by said cup-pieces and said leather covers, and a bridge-piece having an aperture through which said air-valves depend and a projection extending into said aperture in the bottom of said cup-pieces, and means for securing said bridge-piece to said inverted lip of said seat-apertures, substantially as described.

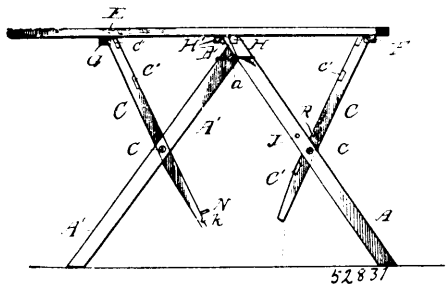
**No. 52,830. Skirt Binding.** (*Bordure de jupes.*)



De Lotbinière MacDonald and Alain Chartier MacDonald, both of Montreal, Quebec Canada, 7th July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—1st. A skirt binding comprising a length of braid or any suitable textile material B, and a binding strip A of leather, oil-cloth, etc., folded longitudinally and inclosing one edge of the braid, which may or may not inclose several wires or cords for stiffening purposes as shown and described for the purposes set forth. 2nd. A skirt binding comprising a length of braid or any suitable textile material B, and a binding strip A of leather, oil-cloth etc., folded longitudinally and inclosing one edge of the braid, the inside surfaces and the inclosed portion being cemented or sewed together in an approved manner, substantially as set forth. 3rd. A skirt binding comprising a length of braid B, a binding strip A folded longitudinally and inclosing one edge of the braid and one or several wires or cords C for the purpose of stiffening such binding, the inside surface of the binding strip A and the inclosed portion of the braid B being cemented or sewn together in any approved manner, substantially as set forth.

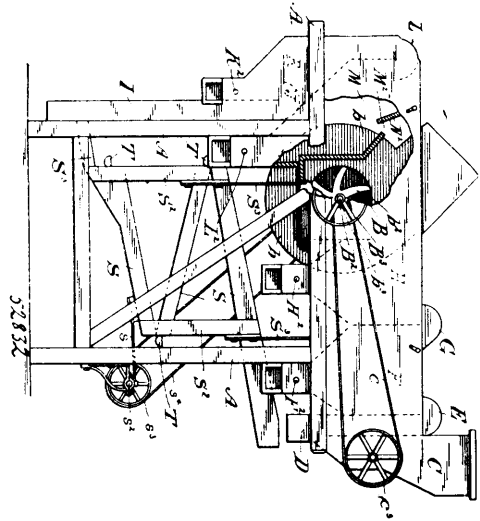
**No. 52,831. Ironing Table, etc.** (*Table à repasser, etc.*)



Sidney D. Kingsley and Earl Brown, both of Delevan, New York, U.S.A., 7th July, 1896; 6 years. (Filed 3rd June, 1896.)

*Claim.* In combination, the pivoted legs A and A', wringer board B, secured to the upper ends of the said legs A, the racks C pivoted to the supporting legs, and the pins J, one of the racks being provided with recesses R designed to receive said pins when the rack is closed, and the other rack provided with recesses k to receive said pins when the racks are held in a horizontal plane, substantially as shown and described.

**No. 52,832. Grain Separator.** (*Séparateur de grain.*)



The Goldie and McCulloch Company, assignee of Harveard Francis Bailey, both of Galt, Ontario, Canada, 7th July, 1896; 6 years. (Filed 16th June, 1896.)

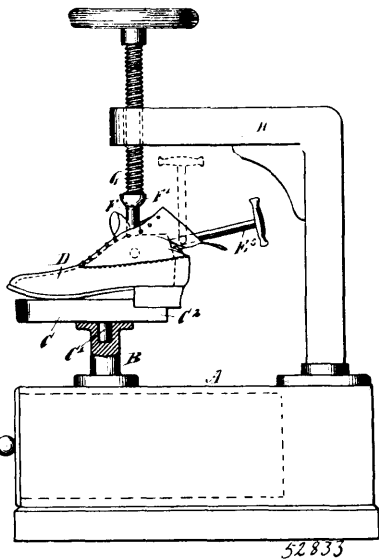
*Claim.*—1st. A grain separator for separating and collecting the hulls from pease, oats and other grain, consisting of a hopper placed at one end, having a fluted roller and regulating valve, a fan placed centrally in the separator, vertical passages at the front and tail end, a series of oscillating sieves, collecting and sorting the grain after it passes from the feed hopper into one of the said passages, and discharging the grain into the tail-end passage, an upward current of air caused by the said fan passing through the said passages taking up the hulls, deflectors at the top of the said passages throwing the said hulls out of the current of the air, conveyers collecting the said hulls, deflectors which throw out any hulls that may be left in the air current, and conveyers for collecting them, and valves for regulating the said air currents, substantially as set forth. 2nd. In a grain separator for separating and collecting the hulls of oats, pease, and the like, the combination with a feed hopper through which the hulls and groats are fed into a vertical passage through which an upward air blast passes separating the hulls from the said groats, of a deflector situated at the upper end of the said passage, the said deflector being concave in cross section whereby the hulls are thrown down, approximately at right angles to the current of air, substantially as set forth. 3rd. In a grain separator for separating and collecting the hulls of oats, pease, and the like, the combination with a deflector whereby the hulls are caused to take a direction approximately at right angles to the current of air, of a sieve interposed in the said current after it leaves the said deflector whereby the hulls that have not been thrown out by the said deflector are arrested, substantially as set forth and described. 4th. In a grain separator for separating and collecting the hulls of oats, pease, and the like, the combination with a fan causing air blasts which encounter the grain both before and after it passes on to the sieves of one or more deflectors placed in each of the said air blasts, whereby the hulls are made to take a direction approximately at right angles to the said blast, valves for regulating the said blasts, and conveyers for collecting the hulls thrown down by said deflectors, substantially as set forth. 5th. In a grain separator for separating and collecting the hulls of oats, pease, and the like, the combination with the feed hopper C and fluted feed rollers C<sup>2</sup>, of the valve C<sup>3</sup>, substantially as set forth. 6th. In a grain separator for separating and collecting the hulls of oats, pease, and the like, the combination with a feed hopper discharging the hulls and groats into a vertical passage through which an upward blast passes of the oscillating sieves S, troughs T, plates S<sup>1</sup>, the grain passing through said sieves and into a passage through which an upward blast passes, substantially as set forth.

**No. 52,833. Shoe Holder.** (*Porte-chaussure.*)

Anthony Barrett Crocco, New York, State of New York, U.S.A., 7th July, 1896; 6 years. (Filed 19th June, 1896.)

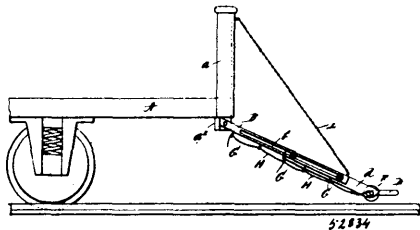
*Claim.*—1st. A shoe holder, comprising a base mounted to turn and adapted to receive and support a shoe, a last adapted to engage said shoe and provided with an upwardly and outwardly extending pin, and a screw rod engaging said pin, to hold the shoe and base firmly in position while cleaning, polishing and blacking the shoe, substantially as shown and described. 2nd. A shoe holder, provided with a last comprising two parts hinged together, a spreader for the parts, a screw rod for moving the spreader, and a nut held in the parts and engaged by said screw rod, said nut

being provided with a pin for connection with a bearing, substantially as shown and described. 3rd. A shoe holder, comprising a



stand, a base mounted on the stand and adapted to support a shoe, a last formed in two sections or halves and adapted to be inserted in the shoe, a bearing connected with the stand, a nut carried by the bearing, and a spreader arranged between the sections or halves of the last and provided with a screw rod engaging said nut, substantially as set forth.

**No. 52,834. Car Fender. (Défense de chars.)**



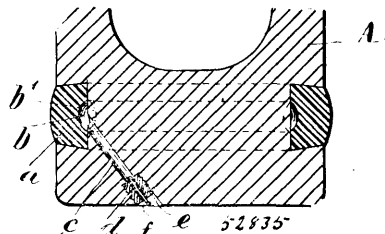
George Alonzo Weed, Water Mill, New York, U.S.A., 7th July, 1896; 6 years. (Filed 19th June, 1896.)

*Claim.*—1st. The combination with the platform of a car, of a fender or guard attached thereto, which consists of a main section or frame pivotally connected with the forward end of the platform and provided with longitudinal slots in the sides thereof, and a supplemental section connected with the main section by means of bolts, which engage the slots in the main section, said main and supplemental sections being provided at each side with depending loops, or similar devices, and a body portion of flexible material to the sides of which are secured cords adapted to pass through said loops said fender or guards being supported in front of a car in such a manner that the forward end thereof will rest adjacent to the tracks, substantially as shown and described. 2nd. The combination with the platform of a car, of a fender consisting of a main section pivotally connected with the forward end of the platform of a car, to each side of which is formed a longitudinal slot, and a supplemental section provided with bolts which pass through said slots in the side of the main section, each of said sections being provided at each side thereof with depending loops or similar devices and a body portion of flexible material in the sides of which are connected cords adapted to pass through said loops, said fender being supported in the front of the car so that the forward end thereof will rest adjacent to the track and an auxiliary frame or section connected with the supplemental section, and projecting in front of the latter, and provided with rollers or wheels at each side of the forward end thereof, substantially as described. 3rd. The combination with the platform of a car, of a fender or guard which consists of a number of sections or parts, the main section or part of which is connected with the forward end of the platform of a car, and having longitudinal slots formed in the side thereof, and a supplemental section provided with bolts adapted to engage said slots, each of said sections having depending loops secured to the sides thereof, and a body portion of flexible material to one side of which are secured cords adapted to pass through said slots, said guards or fenders being in front of the car adjacent to the track, and an auxiliary frame or section pivotally connected with the supplemental

section and adapted to project in front of the car, and provided with rollers or wheels at each side of the forward end thereof, and devices connected with the forward end of the main section or frame, and extend inwardly and outwardly, and connected with the dash board to support the forward end of the fender, substantially as described

**No. 52,835. Gas-check for Projectiles.**

(Appareil à contrôler le gaz pour projectiles.)

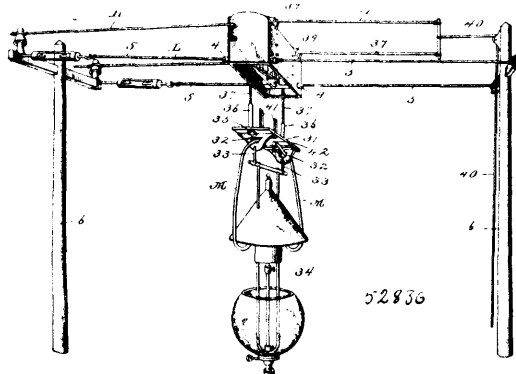


Alfred Nobel, Paris, France, 7th July, 1896; 6 years. (Filed 29th January, 1896.)

*Claim.*—1st. A projectile with a gas-check ring or rings which by the explosion of a special powder charge, located in the projectile or in the ring or rings and fired by the main charge or otherwise, is pressed in radial direction against the bore of the gun, substantially as herein shown and described. 2nd. In a projectile with a gas-check ring or rings, a continuous chamber or recess between said ring and the body of the projectile adapted to hold the product of the explosion of a special powder charge, an aperture at the rear of the projectile communicating with said chamber or recess, a plug or screw closing said aperture, a touchhole in said plug and a back-pressure valve in said touchhole, substantially as set forth. 3rd. In a projectile with a gas-check ring or rings, a continuous chamber, recess or groove within said ring partially open at the rear and adapted to hold a special powder charge adapted to expand the outer portion of said ring when exploded, substantially as set forth.

**No. 52,836. Safety Arc Lamp Hanger.**

(Suspension de sûreté pour lampes à arc.)



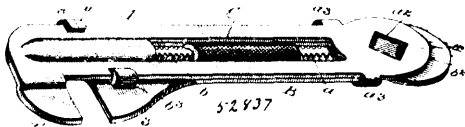
Edward P. Snowden, St. Joseph, Missouri, U.S.A., 7th July, 1896; 6 years. (Filed 13th April, 1896.)

*Claim.*—1st. In a hanger for electric lamps, the hanger box having an open bottom and oppositely located end pieces, hanger bars fitted on the outer sides of said end pieces and provided intermediate of their ends with perforated guiding lugs, guide pulleys mounted on said end pieces above said guiding lugs, pulley housings arranged on the hanger box at one side of said pulleys, supporting cables connected with the ends of said hanger bars to support the hanger box in a fixed position, switch mechanism arranged within the hanger box and having line wire terminal connections therewith, a vertically movable hanger table provided at opposite ends with hanger brackets for suspending the electric lamp, tubular guide rods projecting above the table and fitted in the opposite ends of the latter, upright switch plugs mounted on the hanger table having lamp wire terminal connections therewith and co-operating with said switch mechanism to open and close the circuit through the lamp, and adjusting cables secured at one end in said tubular guide rods, and passed through said guiding lugs of the hanger bars, around the guide pulleys, and through the housings therefor, substantially as set forth. 2nd. In a hanger for electric lamps, the combination of a fixedly supported hanger box open at the bottom and provided within its opposite ends with oppositely inner end pieces, hanger bars fitted on the outer sides of said end pieces and provided with perforated ends projected through the sides of the box and with intermediate perforated guiding lugs, supporting cables connected with the ends of said hanger bars, switch mechanism arranged within the hanger box and having line wire terminals connected therewith, a vertically movable hanger table provided at opposite ends with hanger brackets for suspending



the lamp, upright tubular guide rods fitted in opposite ends of the table and adapted to work through said guiding eyes of the hanger bars, upright switch plugs mounted on the hanger table and having lamp wire terminal connections therewith, said switch plugs co-operating with said switch mechanism to open and close the circuit through the lamp, and adjusting cables secured at one end in said tubular guide rods, substantially as set forth. 3rd. In a hanger for electric lamps, a fixedly supported hanger box having an open bottom, a switch board arranged within said hanger box, a pair of spaced vertically disposed switch plug receivers secured to one side of said switch board and provided at a point intermediate of their ends with laterally projected binding posts extending through the switch board, a switch lever connected between said plug receivers, insulator tubes fitted in opposite ends of the box and having their inner ends disposed directly at one side of the wire receiving ends of said binding posts, and a vertically movable lamp hanger table carrying a pair of switch plugs having lamp wire terminal connections therewith and adapted to work in and out of said switch plug receivers to operate said switch lever connection, substantially as set forth. 4th. In a hanger for electric lamps, a fixedly supported hanger box having an open bottom, a switch board arranged within said box, a pair of spaced vertically disposed switch plug receivers having lamp wire terminal connections therewith, and each essentially comprising a fixed conductor bar and a leaf spring jaw arranged at one side of said conductor bar, the conductor bar of one of the said receivers being provided near its lower end with an off-standing bracket arm carrying a contact keeper, and the conductor bar of the other receiver being provided near its lower end with slide pivot lugs, a swinging switch lever pivotally connected to said lugs and provided at one end with a heel portion engaging against the outer side of one of said spring jaws, and with a short off-standing adjusting arm adjacent to said heel portion, a retractile spring connected to said adjusting arm and a fixed point of attachment to provide for normally holding one end of said switch lever within said contact keeper to close the circuit directly through the two plug receivers, and a vertically movable hanger table carrying a pair of switch plugs having lamp wire terminal connections therewith and adapted to work in and out of said plug receivers, substantially as set forth. 5th. In a hanger for electric lamps, a fixedly supported hanger box, a pair of spaced vertically disposed switch plug receivers supported within said box and having lamp wire terminal connections therewith, each of said receivers comprising a fixed conductor bar having a concave side and an enlargement at its upper end, and a leaf spring jaw disposed opposite the concave side of the conductor bar and secured at its upper end to the enlargement of the same, a normally closed switch connection between the two plug receivers, a vertically movable lamp hanger table, and a pair of spaced switch plugs provided with lower binding post ends secured in the table and projecting therebelow for connection with the lamp wire terminals, said switch plugs being partly cylindrical and provided with flattened sides and bevelled upper ends, the entrance of said plugs into said plug receivers, providing for opening said switch connection between the receivers, substantially as set forth.

**No. 52,837. Wrench. (Clé à écrou.)**



Albert Kingman Lovell, New York, State of New York, U.S.A., 7th July, 1896; 6 years. (Filed 8th May, 1896.)

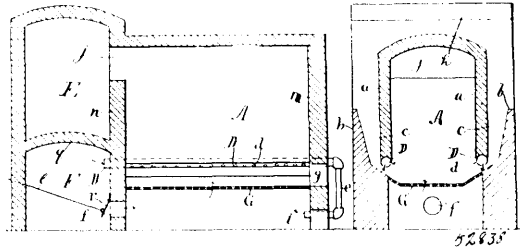
*Claim.*—1st. A wrench body composed of two sheet metal members, substantially as described, having integral therewith jaws and lips which form a sliding connection between the members. 2nd. The two sheet metal members having the bent connecting lips and the threaded necks integral therewith in combination with the adjusting nut. 3rd. In a wrench, the two slotted body members having the intermediate threaded necks in combination with the connecting nut. 4th. In a wrench, the sheet metal body members mounted to slide one on the other and having integral jaws bent or offset in reverse directions to bring their faces opposite each other, substantially as described. 5th. The sheet metal body members each corrugated, slotted and provided with a threaded neck and with lips to embrace the other member, in combination with the connecting nut. 6th. In a wrench, two sliding members provided with square overlapping holes, whereby the wrench is adapted to grasp the four faces of square nuts of different sizes.

**No. 52,838. Furnace. (Fournaise.)**

Frank L. Bartlett, Canon City, Colorado, U.S.A., 7th July, 1896; 6 years. (Filed 11th May, 1896.)

*Claim.*—1st. The herein described furnace having coal pockets *c* on opposite sides, feed openings in the bottoms of said pockets connecting them with the combustion chamber of said furnace, an air blast pipe *D* adjacent to each of said openings having jets *d* directed inward towards the centre. 2nd. The herein described furnace having a coal pocket *c* in the side thereof, a feed opening in the bottom of said pocket connecting the same with the combustion chamber of

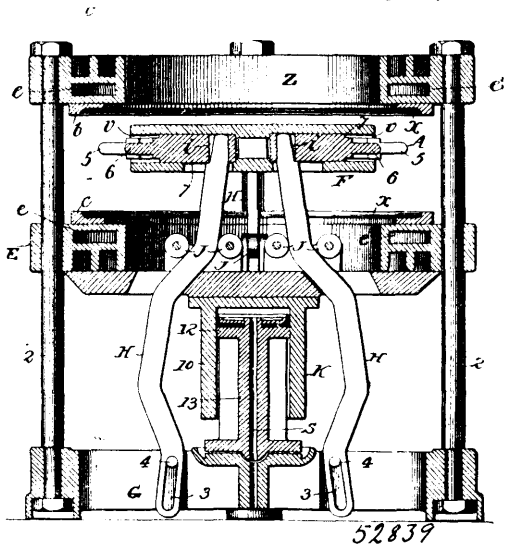
the furnace, an air blast pipe *D* immediately above said opening and having jets *d* directed vertically downward and jets *d'* directed



inward towards the centre of said furnace. 3rd. The herein described furnace having a coal pocket *c* at the side thereof, separated from the combustion chamber by a wall *a*, a narrow opening in the lower portion of said pocket through which the coal enters the furnace in a thin layer, a perforated air blast pipe *D* forming one side of said opening, and a grate *G* on which said coal falls. 4th. The herein described furnace having a coal pocket *c* on each side thereof connecting with the combustion chamber of said furnace by a narrow opening, an inwardly inclined grate *G* immediately below each of said openings, an air blast pipe *D* forming the top of each of said openings, the said air blast pipe having a series of holes *d* discharging directly downward, and a series of holes *d'* directed inward substantially parallel with said inclined grate. 5th. The herein described furnace having a pocket *c* for receiving the fuel, said pocket having a narrow opening through which the fuel is discharged into the furnace in a thin layer, and a perforated air blast pipe *D* forming the upper part of said opening. 6th. The herein described furnace having a side wall *a* resting on a perforated air blast pipe *D*, a buttress *b* outside of said wall, the space between said buttress and said wall forming a coal receiving pocket *c* having an opening beneath said pipe connecting with the combustion chamber of the furnace, and a perforated grate *G* on which the fuel falls after passing through the opening.

**No. 52,839. Machine for Making Bicycle Tires.**

(Machine pour faire les bandages de bicycles.)



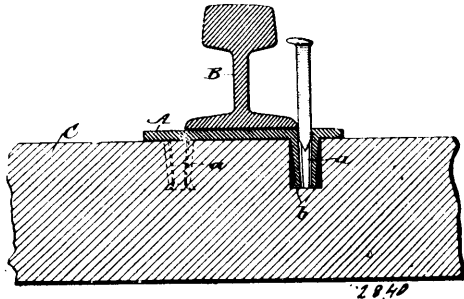
Henry James Doughty, Providence, Rhode Island, U.S.A., 7th July, 1896; 6 years. (Filed 20th May, 1896.)

*Claim.*—1st. The within described apparatus for the manufacture of tire covers for wheeled vehicles, the same provided with means for expanding a cylindrical coated ring of fabric by a pressure outward at the centre thereof to thus bring the edges parallel to each other, and forming a U-shaped ring, substantially as set forth. 2nd. The combination in an apparatus for the manufacture of tire covers for velocipedes, from a cylindrical ring of suitably coated fabric, of a former and means for introducing and expanding the same within said ring to distend the centre of the latter, and means for moulding and vulcanizing the ring upon the former, substantially as set forth. 3rd. An apparatus for forming and vulcanizing tires of velocipedes provided with an expandible former, means for expanding and contracting the same, and with a two-part vulcanizing mould adapted to receive the former when expanded, substantially as set forth. 4th. The combination of a two-part vulcanizing mould, means for moving one of the parts to and from the other, expandible former between the said parts, and means for expanding the former and moving it to and from one of the parts, substantially as set forth. 5th. The within described expandible formed for making

tires for velocipedes, the same consisting of a series of sections 5, with inclined ends, a series of wedge-like sections 6, and a frame carrying all of the sections, and means for carrying them outward and inward on radial paths. 6th. The combination of the segmental sections 5, wedge-sections 6, guides for the said sections, and jinks uniting the sections, substantially as set forth. 7th. The combination of the separable dies, a frame E carrying one of the dies, an expandible former and a frame carrying the same, levers H having bearings upon the frame E, and connected with sections of the former, and an engine K for raising and lowering the frame E, substantially as set forth. 8th. An apparatus for forming and vulcanizing tires of velocipedes provided with an expandible former and with a vulcanizing mould adapted to receive the former when expanded, substantially as set forth. 9th. An apparatus for forming and vulcanizing tires of velocipedes provided with an expandible former and with a two-part vulcanizing mould adapted to receive the former when expanded, and guides for carrying the former to and from one part of the mould and for carrying the other part to and from the former, substantially as set forth.

**No. 52,840. Railroad Tie Plate.**

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

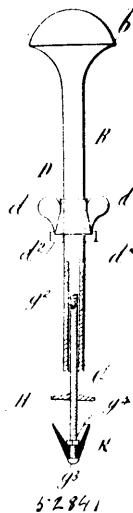


Alexander Buchanan Barret Harris, Bristol, Tennessee, U.S.A., 7th July, 1896; 6 years. (Filed 22nd May, 1896.)

*Claim.*—1st. A railroad tie plate consisting of a flat body portion having spike holes through it and with tongues or split extensions on its under side immediately adjacent to the spike holes, said tongues being formed in one piece with the flat body portion and adapted to be expanded or forced outwardly and embedded in the tie plate by the thrust of the spike in being driven, substantially as and for the purpose described. 2nd. A railroad tie plate having spike holes through it and provided with four downwardly projecting tongues formed integrally with the plate, all made with straight outer edges, and the two opposite tongues being made with thicker lower ends and the alternate ones of uniform thickness forming an opening between them contracting on its two sides toward its lower end, substantially as and for the purpose described.

**No. 52,841. Pneumatic Tire Plug Tool.**

(*Outil pour réparer les bandages pneumatiques.*)

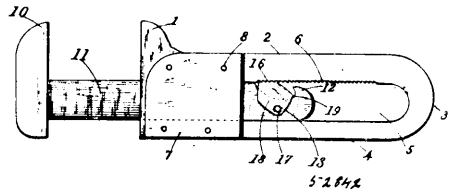


Edwin Garland Hurt, Caldwell, Idaho, U.S.A., 8th July, 1896; 6 years. (Filed 26th May, 1896.)

*Claim.*—1st. The device for closing or sealing a puncture in a pneumatic tire, consisting of a screw-threaded rod, one end of which is formed to a head having a collar mounted thereon, a disc secured on said rod and a flexible attachment adapted to engage said rod

between said head and collar, the tubular shaft provided with a handle at one end and having a transverse pin adapted to engage a hook or projection in the end of the screw-threaded rod, substantially as described. 2nd. The device for closing or sealing a puncture in a pneumatic tire consisting of a screw-threaded rod, one end of which is formed to a head, having a collar mounted thereon, a disc secured on said rod, and a flexible attachment adapted to engage said rod between said head and collar, the tubular shaft provided with a handle at one end and having a transverse pin adapted to engage a hook or projection in the end of the screw-threaded rod, said handle being provided with a sleeve having opposite shoulders or projections, and having flanges adapted to engage a transverse slot in the surface of said disc, substantially as described. 3rd. The herein described device for sealing punctures in a pneumatic tire, consisting of a tubular rod B, provided with a head *b*, a collar mounted on said rod and having a collar D, mounted on said rod and having shoulders or projections *d*, and provided with flanges *d*<sup>2</sup>, a screw-threaded rod G, provided with a head *g*<sup>2</sup>, and a collar *g*<sup>1</sup>, a conical collar attachment *h*, a disc *h*, all combined, arranged and operated, as and for the purpose set forth.

**No. 52,842. Wrench. (Clé à écrou.)**

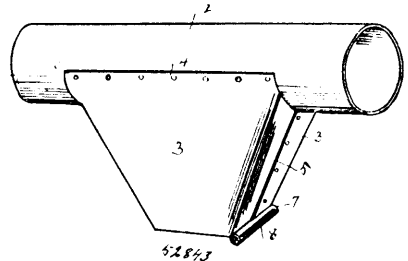


William Dicks, Buffalo, New York, U.S.A., 8th July, 1896; 6 years. (Filed 3rd June, 1896.)

*Claim.*—1st. A wrench consisting of a handle carrying the stationary jaw, U-shaped metal plates riveted to the ends of said handle for strengthening the same, and also preventing the sliding-jaw portion from entirely leaving the slide-way, a slide-way located on the inner side of the handle in which the sliding portions carrying the movable jaw move, a ratchet-pawl pivoted to the rear end of the sliding portion, having a series of teeth adapted to engage with teeth cut in one side of the handle slide-way, and means for keeping said pawl in engagement, substantially as set forth. 2nd. A wrench consisting of a handle carrying the stationary jaw, a slide-way located in said handle provided with a series of ratchet-teeth on one side, and means for connecting the open ends of the handle, in combination with a sliding portion carrying the movable jaw, a hook-shaped portion at the rear end of the sliding portion, and a ratchet-pawl pivoted to the rear end of the sliding portion by a pin passing through an elongated opening so as to allow the pawl a slight longitudinal movement, and so that the rear end of the pawl will rest in and against the hook portion and prevent the strain from coming on the pivot pin, while operating the wrench, substantially as described. 3rd. A wrench consisting of a handle carrying the stationary jaw and having a slide-way in which the sliding portion carrying the movable jaw moves, a series of ratchet-teeth located in one side of said slide-ways, and means for connecting the two ends of the slide-way together in combination with a sliding portion carrying the movable jaw, a ratchet-pawl pivoted to the rear end of the sliding portion having a series of teeth adapted to engage with the teeth in handle slide-way and a spring for keeping said pawl in engagement, substantially as described.

**No. 52,843. Fire Guard and Soot Catcher.**

(*Garde-feu et arrête-suie.*)

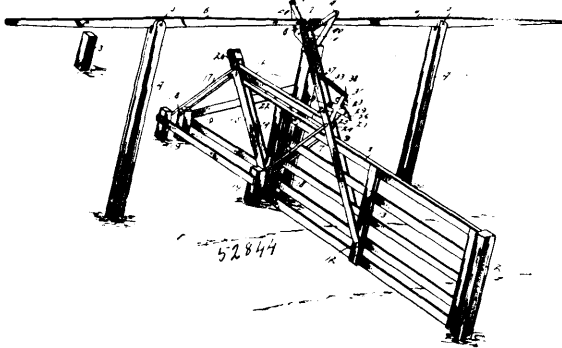


Gabriel A. Pickle, Eagle Lake, Minnesota, U.S.A., 8th July, 1896; 6 years. (Filed 27th May, 1896.)

*Claim.*—1st. In a device of the class described, the combination of a horizontal stovepipe section provided at its bottom with a longitudinal opening, a fixed depending circular deflector or shield arranged within the stovepipe section and constructed of sheet metal and being of the same diameter as the interior of the same and located centrally of the longitudinal opening, and having its bottom portion bent at an angle in the direction of the stove to present a concave surface to the products of combustion, and a substantially triangular receptacle depending from the stovepipe and surrounding

the opening thereof, substantially as described. 2nd. In a device of the class described, the combination of a horizontal stovepipe section provided at its bottom with a longitudinal opening, a rigidly-mounted imperforate deflector or shield arranged within the stovepipe section at the opening thereof, and a substantially triangular receptacle depending from the stovepipe section and arranged beneath the opening thereof, and composed of the opposite side secured at their upper edges to the stovepipe section and provided at their inclined edges with inwardly-extending transverse flanges overlapping and forming the end walls of the receptacle and recessed at their upper ends to conform to the configuration of the stovepipe section, said sides being provided at their lower edges with horizontal flanges 6, and a removable sliding bottom 7, arranged on the flanges 6, substantially as described.

**No. 52,844. Gate. (Barrière.)**

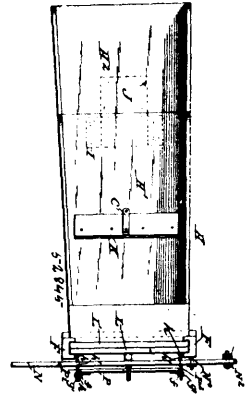


David W. Brooks, Salem, Nebraska, U.S.A., 8th July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. In a gate, the combination of the respective arms of a toggle-lever, a T-shaped head extending from one of the arms beyond the pivot, a bar pivoted to the head and provided with means for engaging the same and capable of a limited swinging movement independent thereof, and a spring for actuating the bar substantially as described. 2nd. The combination with a gate, of a suspending and swinging mechanism comprising a short link member pivoted at its lower end to the rear end of the gate at the bottom thereof, a long link member similarly pivoted to the gate forward of the other member, a horizontal connecting rod holding the links in line with each other, and two brace-arms pivoted respectively at their upper ends to the said links at the ends of said rod, and at their lower ends to suitably-fixed bearings removed from and parallel with the gate pivots, an operating lever extending transversely to the gate and intermediately pivoted to a fixed support and connected to the upper end of the long link member, and a spring-actuated deflector to carry said parts automatically past their line of dead-centre, whereby the gate is permitted to swing longitudinally, substantially as described. 3rd. The combination with a gate, of a suspending and swinging mechanism, comprising a short link member pivoted at its lower end to the rear end of the gate, at the bottom thereof, a long link member pivoted similarly to the gate in advance of the other member, a horizontal connecting rod holding said links in line with each other, and two brace arms pivoted respectively at their upper ends to the links at the ends of said rod, and at their lower ends to suitably-fixed bearings removed from and parallel with the gate-pivots, an operating lever extending transversely of the gate and intermediately pivoted to a fixed support and connected to the upper end of the said long link, a spring-actuated deflector to carry the said parts automatically past their line of dead-centre, and a guide member connected to said operating lever and arranged to limit the same to true vertical movement without lateral strain, whereby the gate is permitted to swing longitudinally, substantially as described. 4th. In a gate mechanism, the combination with the respective arms of a toggle-lever, of a T-shaped head extending from one of said arms beyond the uniting pivot, a bar pivoted to said head provided with a stop-arm carrying a stop to engage said head and limit the swing of said bar relatively to said head, a pawl pivoted to said bar and arranged to engage said T-head, a plunger pivoted at one end to the outer end of said bar and at the other end to the other of said toggle-arms, and a spring for giving said bar a normal tendency away from said arm, whereby said toggle-levers are automatically carried past their dead-centre line, substantially as described. 5th. In a gate mechanism, the combination with the respective arms of a toggle-lever, of a T-shaped head extending from one of said arms beyond the uniting pivot, a bar pivoted to said head provided with a stop arm on either edge carrying a stop to engage said head and limit the swing of said bar relatively to said head, a double pawl pivoted to said bar and arranged to engage said T-head, alternately at either end, a plunger pivoted at one end to the outer end of said bar and at the other end to the other of said toggle-arms, and a spiral spring threaded over said plunger between its arm-pivot and its bar-pivot, whereby said toggle-levers are carried automatically past their dead-centre line, substantially as described. 6th. In a gate mechanism,

a guide for the moving end of a lever, comprising two arms joined together and to the moving part at their outer ends, and at their inner ends jointed to two similar arms, said latter arms, the same being pivoted apart to a fixed bearing-plate and provided concentric to said pivots with intermeshing segmental gears, whereby the said moving part is caused to move in a straight line, substantially as described.

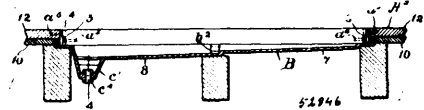
**No. 52,845. Fodder Cutter. (Coupe-fourrage.)**



John Laughlin, York, Pennsylvania, U.S.A., 8th July, 1896; 6 years. (Filed 17th June, 1896.)

*Claim.*—The combination with a reciprocating knife frame of a feed cutter, of an adjustable gauge stop block provided with eyed lugs, notched arms projecting from the said movable frame, and confining pins passed through the eyed lugs and into the notches of the arms, whereby both sides of the gauge stop block can be accurately adjusted the same distance from the cutting blade, substantially as described.

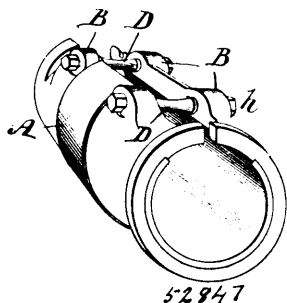
**No. 52,846. Stall Floor. (Plancher d'étal.)**



Charles B. Emery, Boston, Massachusetts, U.S.A., 8th July, 1896; 6 years. (Filed 17th June, 1896.)

*Claim.*—1st. The combination separated with a stall floor composed of independent planks, separated from one another to leave slots or spaces between them, and a basin or bed therefor, of a reinforcing bridge secured to the under side of the said spaced planks between their ends, to tie the same, preserve the spacing thereof, and to form a support therefor, the said bridge having depressions therein below and in line with the spaces between the planks and extending nearly to the basin floor, to thereby permit the passage without obstruction of a cleaning hook through and below said slots from end to end thereof, and the passage of said cleaning hook along the surface of the basin or bed without substantial obstruction, substantially as described. 2nd. A stall floor composed of independent planks arranged longitudinally of the stall separated from one another to leave slots or spaces between them and secured together at their ends, a basin arranged below said spaced planks with its rearwardly inclined bottom divided transversely into upper and lower inclined portions, and a reinforcing bridge secured to the under side of the said spaced planks between their ends and having depressions therein below and in line with the spaces between the planks, the said bridge being secured to the under side of the spaced planks at a point to enable it to bear upon and be supported by the lower inclined portion adjoining the lower end of the upper inclined portion, whereby the bottom of the depression in said bridge will be substantially flush with the upper inclined portion of said basin, in combination, substantially as and for the purpose specified. 3rd. The combination, with a stall floor composed of independent planks separated from one another to leave slots or space between them, and a basin or bed therefor, of a reinforcing bridge secured to the under side of the said spaced planks between their ends, to tie the same, preserve the spacing thereof, and to form a support therefor, the said bridge having depressions therein below and in line with the spaces between the planks and extending nearly to the basin floor, to thereby permit the passage without obstruction of a cleaning hook through and below said slots from end to end thereof, and the passage of said cleaning hook along the surface of the basin or bed without substantial obstruction, and having also openings therein extending to the basin or bed to form passages for the flow of liquids along the basin or bed from one to the other side of the said bridge, substantially as described.

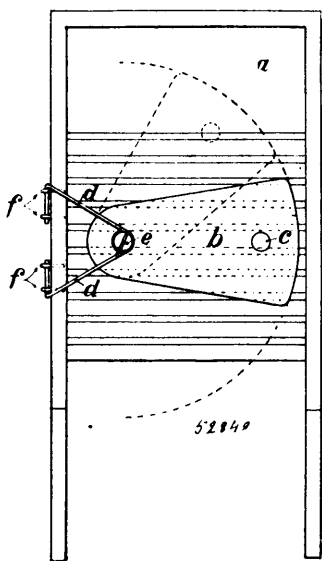
**No. 52,847. Shaft Bearing.** (*Coussinet d'essieu.*)



Edwin J. Armstrong, Oswego, New York, U.S.A., 8th July, 1896; 6 years. (Filed 16th June, 1896.)

*Claim.*—A shaft bearing, consisting of a metal shell A, split lengthwise on one side and formed at each side of said split with perforated lugs B arranged opposite each other, one lug on each pair being screw threaded, a screw D, for each pair of lugs for adjusting said split shell to the shaft, and means gripping one lug of each pair, for locking the screws in their adjusted position, substantially as described.

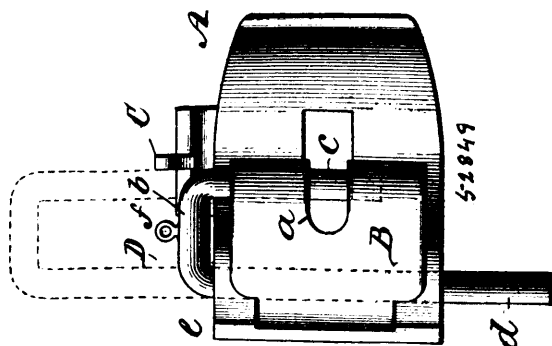
**No. 52,848. Washing Machine.** (*Machine à laver.*)



William Murphy, Saint John, New Brunswick, Canada, 8th July, 1896; 6 years. (Filed 18th June, 1896.)

*Claim.*—1st. The top board or rubber covered on the under side with corrugated zinc, the ends of the zinc entering saw cuts or grooves at or near the ends and edges of said board. 2nd. The hinge formed of one piece of wire attached to the top board near one end by one screw, and to the end of the wash-board by staples forming a universal joint.

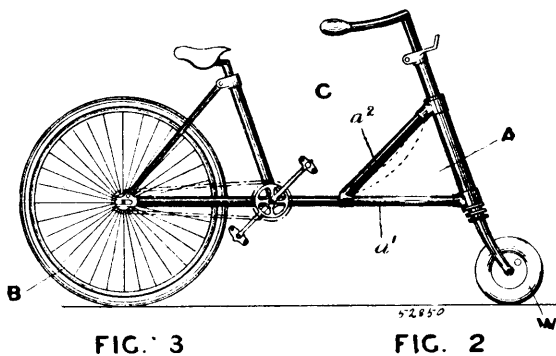
**No. 52,849. Car Coupler.** (*Attelage de chars.*)



Frank G. Krammer, Chicago, Illinois, U.S.A., 8th July, 1896; 6 years. (Filed 16th June, 1896.)

*Claim.*—1st. The combination, with an automatic car coupler having a swinging knuckle, of a combined hinge or pivot pin and coupling pin, D, comprising two members, one of which forms the hinge or pivot pin, *d*, for the knuckle, and the other the coupling pin, *c*, for a link, substantially as described. 2nd. A combined hinge, or knuckle pin and coupling pin for automatic car couplers having a swinging knuckle, consisting of a single bar, D, bent upon itself and adapted to be raised and swung in a circle and provided with means for holding it in its uncoupled position, substantially as described. 3rd. The combination, with an automatic car coupler having a swinging knuckle, of a combined hinge or knuckle pin and coupling pin comprising two members one of which forms the pivot pin for the knuckle and the other being adapted to enter between the front edge or wall of the drawhead and the knuckle, substantially as described. 4th. The combination, with an automatic car coupler having a swinging knuckle, of a combined hinge or pivot pin and coupling pin, D, comprising two parallel members one of which forms the hinge or pivot pin, *d*, for the knuckle and the other a coupling pin, *c*, for a link, and means for retaining the coupling pin in its uncoupled position, substantially as described.

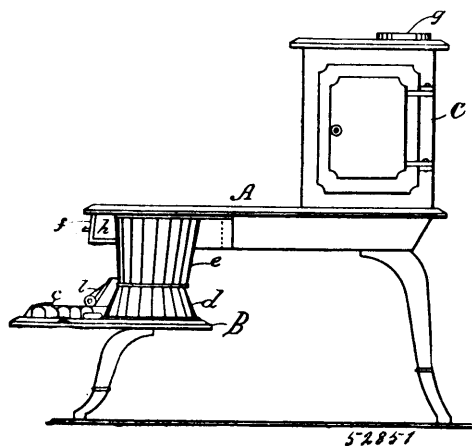
**No. 52,850. Cycle.** (*Cycle.*)



James Edgar Hatch, 340 Heath Terrace, West Bromwich, England, 8th July, 1896; 6 years. (Filed 18th June, 1896.)

*Claim.*—1st. The improvements in cycles substantially as herein set forth and as shown upon the accompanying drawing. 2nd. In cycles, the particular construction of the front part of the frame A, consisting of the members *a*<sup>1</sup>, *a*<sup>2</sup>, attached to the front and back part substantially as set forth and as shown by figures 1, 4 and 5. 3rd. In cycles, the new construction of the wheel W for mounting in the frame A, substantially as herein set forth and shown upon the drawings.

**No. 52,851. Stove.** (*Poêle.*)



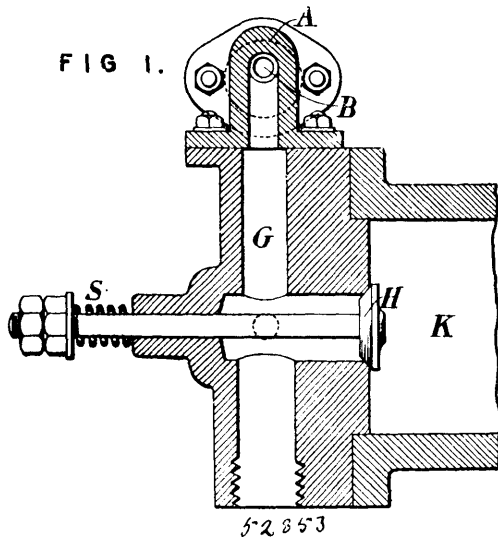
John A. Crossman, Amherst, and Uriah J. Weatherbee, Springhill, both in Nova Scotia, Canada, 8th July, 1896; 6 years. (Filed 19th June, 1896.)

*Claim.*—1st. In a cooking stove of the class herein described a corrugated fire-pot consisting of one piece only, without lining, substantially as and for the purpose hereinbefore described. 2nd. In a cooking stove of the class herein described, the combination of the top A, the corrugated fire-pot *c*, the mouth-piece *h* and the feed-door *f*, with the base *d*, the bottom B, the hearth-place *e*, and the grate door *i*, substantially as and for the purpose hereinbefore described.

**No. 52,852. Method of Working Steam Engines.***(Méthode de fonctionnement de machine à vapeur.)*

Alfred Hogg, 31 Morey Place, Dunedin, New Zealand, 8th July, 1896; 6 years. (Filed 16th June, 1896.)

*Claim.*—1st. An improved method of working a steam engine by water taken from the hottest part of a boiler, through small pipes and admitted by slide valves, preferably in the form of spray, direct into the cylinder or cylinders of a condensing engine, at a temperature of about 212 degrees (Fabr.); in the absence of atmospheric pressure the water expanding into steam and exerting a pressure on the piston in proportion to the vacuum maintained in the condenser, substantially as and for the purposes described and explained herein. 2nd. An improved method of working a steam engine by vapour taken from a boiler through steam pipes and admitted by slide valves direct into the cylinder or cylinders of a condensing engine at about a temperature of 212 degrees (Fabr.); in the absence of atmospheric pressure the vapour exerting a pressure on the piston, in proportion to the vacuum maintained in the condenser, substantially as and for the purposes described and explained herein. 3rd. An improved method of working a steam engine by connecting up more cylinders than one as pairs, all cylinders being fed by vapour or water spray, at a temperature of about 212 degrees (Fabr.), direct from the boiler, and all the cylinders being connected direct with the condenser, each cylinder being fitted with a small regulating valve when water spray is used, substantially as and for the purposes described and explained herein.

**No. 52,853. Vaporizer for Oil Engines.***(Évaporateur de machine à huile.)*

Grover &amp; Company, Britannia Works, Wharf Road, City Road, assignee of Arthur Barker, Clerkenwell, both in England, 8th July, 1896; 6 years. (Filed 10th March, 1896.)

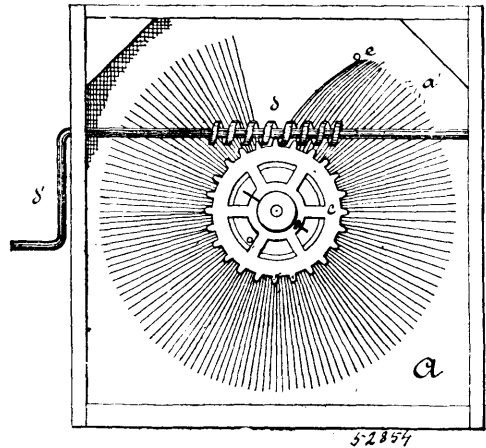
*Claim.* In a vaporizer for an oil motor engine, the combination with the chimney adapted to contain the heating lamp, of an outer tube fixed across such chimney, a tube perforated along its upper side and an inclined disc within such outer tube, a duct or inlet to said outer tube, with controlling valve therefor, a passage leading from said perforated tube to the engine cylinder and a valve controlling said passage, for the purpose set forth.

**No. 52,854. Mutoscope. (Mutoscope.)**

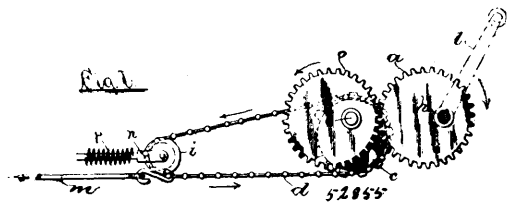
The American Mutoscope Co., New York, assignee of Herman Casler, Canastota, both in the State of New York, U.S.A., 8th July, 1896; 6 years. (Filed 9th May, 1896.)

*Claim.*—1st. In a mutoscope, a picture card having its lower end convex for the purpose of causing the lower portion to assume a concavo-convex position in cross section when mounted. 2nd. In a mutoscope, an arbor having cards of pictures arranged radially thereon, said cards having openings in their edges and their lower end convex, flanged washers secured upon said arbor, the flanges adapted to engage with the openings or recesses in the edges of the cards, and means for rotating said arbor. 3rd. In a mutoscope, an arbor having picture cards arranged radially thereon, means for holding the outer ends rearwardly under tension during a portion of the revolution for the purpose of exposing the pictures to view, a worm gear secured to said arbor and a worm adapted to rotate said gear and arbor. 4th. In a mutoscope, an arbor having picture cards arranged radially thereon and upon a spiral spool, and means for holding the upper ends rearwardly for the purpose of exposing the pictures in view, a worm-gear secured to said arbor and a worm adapted to rotate said gear and arbor. 5th. In a mutoscope, an arbor having

picture cards arranged radially thereon and upon a spiral spool, a bracket adapted to travel longitudinally with said spool, as set forth.



6th. A mutoscope, an arbor having a spiral spool mounted thereon, cards arranged radially thereon, said cards having the adjacent right and left hand corners removed so as to allow their base ends to lie in the same plane, and a bracket adapted to travel longitudinally with said spool for the purpose of holding the upper ends of the cards back so as to give them a quick snapping movement, a worm-gear secured to said arbor, and a worm adapted to rotate said gear, arbor and spool, as set forth. 7th. In a mutoscope, an arbor having elastic picture cards arranged radially thereon and rigidly attached thereto and means for holding the outer edges of the cards rearwardly under tension during a portion of the revolution.

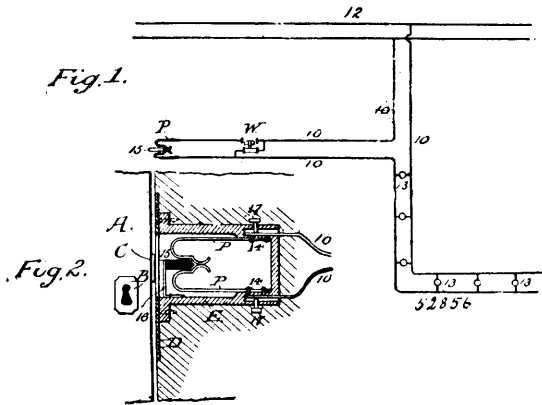
**No. 52,855. Mechanism for operating Car Brakes.***(Mécanisme pour actionner les freins de chars.)*

The La Rose Car Brake Company, New Bedford, Massachusetts, assignee of Eugene E. La Rose, Providence, Rhode Island, U.S.A., 8th July, 1896; 6 years. (Filed 28th May, 1896.)

*Claim.*—1st. In hand-braking mechanism for street cars, the combination of a pair of revoluble non-concentric gears or members adapted to work in unison, an operating lever or handle through which said members are actuated, a revoluble eccentric drum or wheel controlled by the movements of said lever, and a connection mounted on said drum and coupled to the brake connections, arranged whereby the latter are moved at an increasing rate of speed during the first part of the brake action and at a decreasing rate of speed during the latter part of the brake action, substantially as described. 2nd. In hand-braking mechanism for street-cars, a pair of eccentric gears meshing into each other, suitable brake connections actuated and controlled by said gears, whereby the initial action of the gears moves said connections faster than a normal rate and much slower than a normal rate during the final action, and having said gearing provided with auxiliary means for further increasing the said fast rate of movement of the connections, substantially as hereinbefore described. 3rd. In a braking device for street cars, the combination with a connection or pull rod, suitably-mounted brake shoes and intermediary members connecting said pull-rod and brake-shoes, of a pair of suitably mounted eccentric gears meshing into each other capable of being operated by the brakeman, an eccentric member, as *c*, actuated by power applied to said gears, and a flexible connection actuated and controlled by said member *c* and connected with the pull-rod, arranged and adapted for operation, substantially as hereinbefore described and for the purpose set forth. 4th. In a braking device for street-cars, the combination of a pair of vertical shafts, an operating handle or lever, a pair of intergearing eccentric gears mounted on said shafts, an eccentric chain-wheel mounted on one of the shafts and a suitably-supported chain mounted on said wheel and connected with a rod or other member, as *m*, through which power is transmitted to the brake-shoes, substantially as set forth. 5th. In a braking device, the combination with an eccentric chain-wheel and compound or multiple gearing for rotating said wheel at varying rates of speed, of an endless chain passing round and capable of being actuated by

said wheel, means for keeping the chain normally taut, and a pull-rod or connection, as *m*, through which the brake-shoes are operated secured to the driving side of the chain, substantially as hereinbefore set forth.

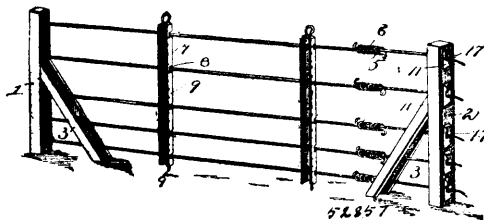
**No. 52,856. Door Lock Switch for Electric Lights.**  
(*Serrure de porte à commutateur pour lumières électriques.*)



William E. Goussier, Jamestown, New York, U.S.A., 9th July, 1896; 6 years. (Filed 8th June, 1896.)

*Claim.*—1st. In a door-lock switch for electric lights, the combination of a box or case to be secured in the door frame and having one end open in line with the lock bolt, spring-plates secured at one end within the box or case and thence extending forward and returned upon themselves with their extremities normally in contact, an insulated switch-piece lying in the path of the lock bolt and having its inner end bevelled and adapted to be forced linearly between the contacting ends of the springs when the bolt is projected on locking the door, a spring-arm or standard carrying the switch-piece, connections between the switch devices and main line wires and lights in the circuit to be controlled by the movement of the door bolt. 2nd. In a door-lock switch for electric lights, the combination of a box or case of insulated material adapted to be secured in the door casing opposite the lock, having its outer end open and its inner end adapted to receive the circuit wires, spring-plates arranged on opposite inner sides of the box or case and thence extended forward and returned upon themselves and having their extremities curved in opposite directions and brought normally together, wires leading to the inner end of the box or case and held in contact with the screws or pins which secure the springs, a spring-arm or standard at the open end of the box or case, a switch-piece of insulated material secured to and projecting at right angles from the upper end of the spring arm, having its inner end bevelled and adapted to be forced between and to separate the contacts by the lock bolt striking its butt end, when the bolt is shot forward, and incandescient lights in the circuit, to be extinguished and lighted by the operation of the bolt and switch-piece.

**No. 52,857. Wire Fastener and Stretcher.**  
(*Tendeur et attache de fil de fer.*)



Union A. Gregg, Tuscola, Illinois, U.S.A., 9th July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. The combination with the opposite posts and wires, of the series of independent fastening-devices, one for each wire, each of said devices consisting of a cast-metal block 11, provided at its upper end with a pair of spaced apart perforated ears and below the same with a projection toothed upon its upper side and at its front provided with a bearing, a loosely pivoted pawl arranged between the ears and adapted to bind at its lower end upon the projection, and a removable windlass arranged in the bearing, substantially as specified. 2nd. The combination with the opposite posts and the connecting wires, of the independent securing-devices, each consisting of the plate 11, having the ears 13, the projection 18, having the half-round bearing 19, the passage 20 within the same, and the serrated portion in rear of the passage, and also the perforation 21, the pawl 14 pivotally mounted between the ears

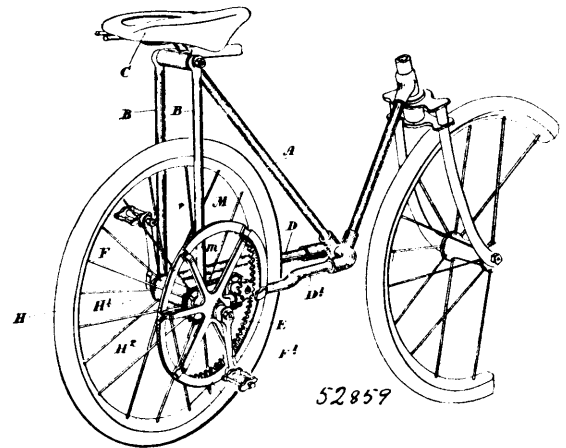
by the pin 15, and having at its upper end the tail 16, and at its lower end the serrated head 17, the removable windlass 22, having the side and end slot 24 and the key 23, substantially as specified.

**No. 52,858. New Alimentary Extract.**  
(*Nouvel extrait alimentaire.*)

Edward Kressel, London, England, 9th July, 1896; 6 years. (Filed 18th June, 1896.)

*Claim.*—1st. The described process for the manufacture of a new alimentary extract, such process consisting in subjecting washed yeast, after removal of the water therefrom, to a temperature not exceeding 58° C, that is to say, to a temperature sufficient to kill the yeast cells, but not high enough to coagulate the albuminoids contained in the said yeast cells, and then straining or filtering the resulting product so as to remove all solid matter and condensing the liquid, substantially as described. 2nd. As an article of manufacture, the new alimentary extract hereinbefore described.

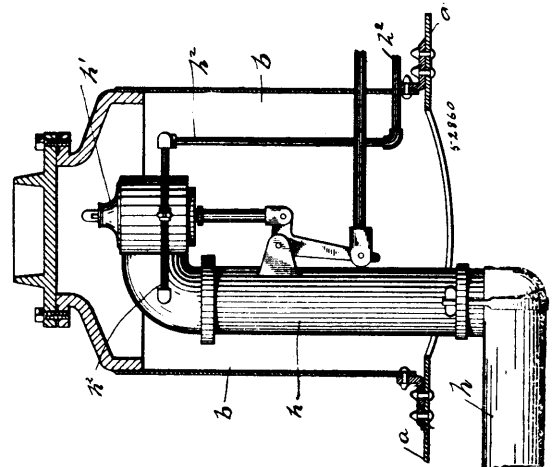
**No. 52,859. Gear for Bicycles.** (*Engrenage de bicyclette.*)



Thomas William Latham, Toronto, Ontario, Canada, 9th July, 1896; 6 years. (Filed 20th June, 1896.)

*Claim.*—1st. In a drive for bicycles, the combination with the main axle journaled in the ends of the lower reaches, the pedal cranks secured on the ends thereof, and the main driving wheel having the hub loosely journaled on the main axle, of an internal gear wheel secured to the main axle, a pinion supported on a suitable stud and meshing with such gear, a sprocket-wheel on the other end of such stud, a sprocket-wheel on the end of the hub of the wheel, and a sprocket-chain connecting such sprocket-wheels, as and for the purpose specified. 2nd. In a drive, as described, in combination, the reach, the divided tubular bracket, the bolts and nuts, the cross tubular upper portion, the stud journaled in such portion as specified, the pinion on one end of the stud, and the sprocket-wheel on the other, as and for the purpose specified.

**No. 52,860. Lubricating Mechanism for Locomotive Cylinders and Valves.** (*Mécanisme graisseur pour cylindres et soupapes de locomotive.*)



Harold Percy Tippett, Columbus, Ohio, U.S.A., 9th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—In a lubricating mechanism for locomotive cylinders and valves, the combination with a locomotive boiler, steam chests and cylinders, an oil-discharging lubricator and tallow pipes leading therefrom to said steam chests, of a steam pipe leading from the cylinder supply pipe at a point between the throttle valve and cylinders into said tallow pipes at points on the outer side of the lubricator nozzle, substantially as and for the purpose specified.

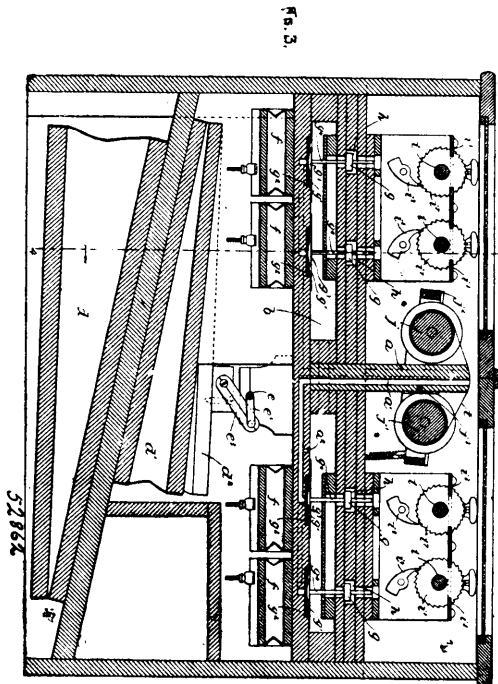
**No. 52,861. Writing Tablet.** (*Tablette à écrire.*)

William H. Keeran, Fort Wayne, Indiana, U.S.A., 9th July, 1896; 6 years. (Filed 11th May, 1896.)

*Claim.*—1st. A writing tablet composed of a sheet of rubber and emery or other gritty substance in fine division combined therewith to form a writing surface. 2nd. A writing board or tablet composed of a sheet of vulcanized rubber in which emery or other gritty substance in fine division is incorporated and combined by the process of vulcanizing to form a writing surface.

**No. 52,862. Counting and Registering Apparatus.**

(*Registre à monnaie.*)



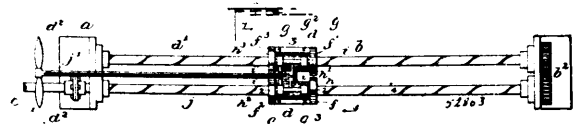
John McTammany, Spencer, Massachusetts, U.S.A., 9th July, 1896; 6 years. (Filed 9th May, 1896.)

*Claim.*—1st. In a pneumatic counting or registering apparatus, the combination of a series of registers, a series of secondary pneumatic motors or actuating devices operatively connected with said registers, a primary pneumatic motor common to all the secondary motors, means normally closing communication between the primary and secondary motors, a channel-board or sheet-support having a series of wind-ways leading to the said closing means whereby air admitted to said wind-ways may act to displace the latter and thereby open communication between the primary and secondary motors, said wind-ways also communicating with the primary motor, and means for feeding a perforated sheet over the said channel-board. 2nd. In a pneumatic counting or registering apparatus, the combination of a wind-chest, air-exhausting means communicating therewith, a channel-board or sheet-support having a series of wind-ways communicating between the upper side of the board and the wind chest, diaphragms extending over parts of said wind-ways, valves resting on said diaphragms, bellows-like chambers, passages extending between said chambers and the wind-chest and normally closed by said valves, a series of registers operatively connected with the bellows-like chambers, and means for feeding a perforated sheet over the channel-board. 3rd. In a pneumatic counting or registering apparatus, the combination of a series of counting registers, a channel-board having a series of wind-ways, tally-sheet supports laterally movable to adjust the sheet over the channel-board to cause different divisions of the sheet to co-operate successively with the wind-ways, and pneumatic register-operating mechanism rendered operative by air admitted through said wind-ways. 4th. In a counting and registering apparatus, the combination of a series of counting registers, a channel-board or sheet-support having a series of wind-ways, tally-sheet feeding mechanism arranged to move a tally-sheet over the channel-board, said mechanism including a tilting frame having sheet-supporting rolls and two operating shafts rotated

in opposite directions and each adapted to be engaged with and disconnected from one of said rolls by a movement of said frame, whereby the feed movement of the sheet may be reversed, and pneumatic register-operating mechanism controlled by air admitted through the wind-ways. 5th. A pneumatic counting or registering apparatus having a channel-board or sheet-support provided with a series of wind-ways staggered or arranged in rows with the members of the rows out of alignment, whereby the admission of air to all the wind-ways simultaneously is prevented. 6th. In a counting and registering apparatus, the combination of a series of counting registers, a series of secondary pneumatic motors engaged therewith, a primary pneumatic motor common to all the secondary motors and connected therewith by passages normally closed by valves, a channel-board or sheet-support having a series of wind-ways, pneumatic valve-opening devices operated by air admitted to the wind-ways, and a sheet-feeding mechanism adapted to feed a perforated tally-sheet across the channel-board. 7th. The combination of a series of counting registers, a series of secondary pneumatic motors engaged therewith, a primary pneumatic motor normally disconnected from the secondary motors, a tally-sheet having a series of wind-ways provided with pneumatically controlled means for connecting the primary motor with the secondary motors, a sheet-feeding mechanism including a tilting frame having sheet-supporting rolls arranged at opposite sides of the channel-board, said rolls being provided with gears, two intermediate shafts each having a pinion arranged to be engaged with one of the rolls by a movement of the frame, and a driving-shaft connected by means substantially as described with the primary motor and with the intermediate shafts, whereby the said motor and intermediate shafts are simultaneously operated, the said shafts being rotated in opposite directions so that the sheet may be moved in either direction.

**No. 52,863. Boat Propelling Apparatus.**

(*Appareil pour propulser les vaisseaux.*)

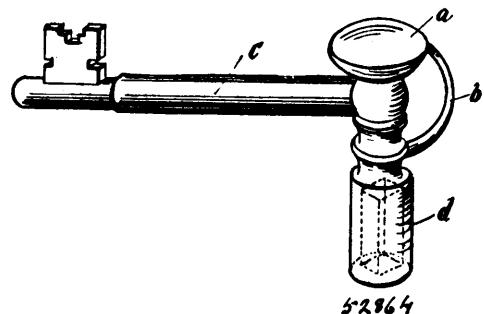


Charles Milton Kimball, Toledo, Ohio, U.S.A., 9th July, 1896; 6 years. (Filed 9th May, 1896.)

*Claim.*—1st. Boat propelling apparatus comprising parallel screw shafts, gears connecting the same, a cross head embracing said screw shafts, means for reciprocating said cross head, sleeves journaled in the cross head and having feathers engaging the channels of the screws, reversely set ratchets on said sleeves, double pawls for engaging said ratchets, and means for reversing the pawls, substantially as described. 2nd. Boat propelling apparatus comprising parallel screw shafts, gears connecting the same, a cross head embracing said screw shafts, means for reciprocating said cross head, sleeves journaled in the cross head and having feathers engaging the channels of the screws, two reversely set ratchets on each sleeve, double pawls for engaging said ratchets, and means for reversing said pawls, substantially as described. 3rd. Boat propelling apparatus, comprising parallel screw shafts, gears connecting the same, a cross head embracing said shafts and having a handle bar by which to reciprocate it, sleeves journaled in said cross head and having feathers in the channels of the screws, reversible detent mechanism controlling the sleeves, and means for reversing said detent mechanism, having its operating member carried by the handle bar of the cross head.

**No. 52,864. Combination Key and Handle.**

(*Clé et manche combinés.*)



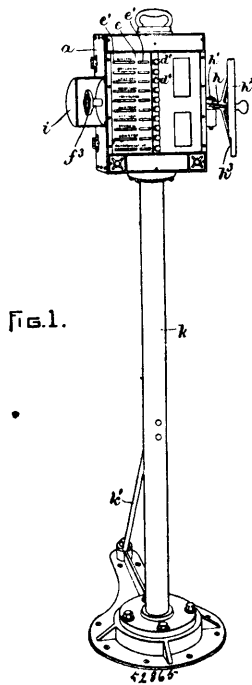
August Gustav Heinrich Schröder, Altona, 21 Blumenstrasse, Germany, 9th July, 1896; 6 years. (Filed 4th May, 1896.)

*Claim.*—1st. A key characterized by the combination of a presser push or latch knob *d* and a house or corridor key *c* in order to allow the locking to be more easily effected with the whole of the hand



constructed and arranged, substantially as hereinbefore described. 2nd. In a key comprising a latch knob *d* and a house key *e*, a flat disc like appendage *a*, with a support *b*, constructed and arranged, substantially as hereinbefore described.

**No. 52,865. Voting Machine. (Machine à voter.)**



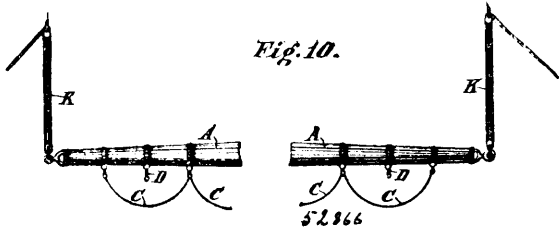
John McTammany, Spencer, Massachusetts, U.S.A., 9th July, 1896; 6 years. (Filed 9th May, 1896.)

*Claim.*—1st. In a voting machine, the combination of suitable supports for a tally sheet and mechanism for feeding the same, and a series of punches extending transversely of the tally sheet and having means whereby they may be operated from the exterior of the machine, the said tally sheet supports and feeding mechanism constituting one part of a vote-recording mechanism, while the said punches and their operating means constitute the other part of said mechanism, one of said parts being independently adjustable by the voter to vary the transverse relation of the tally sheet to the punches and enable the voter to thereby determine the character of his vote by the location of the punch marks transversely of the tally sheet, substantially as and for the purpose specified. 2nd. In a voting machine, the combination of suitable supports for a tally sheet and mechanism for feeding the same, a series of punches extending transversely of the tally sheet and having means whereby they may be operated from the exterior of the machine, the said tally sheet supports and feeding mechanism constituting one part of a vote recording mechanism, while the said punches and their operating means constitute the other part of said mechanism, one of said parts being independently adjustable by the voter to vary the transverse relation of the tally sheet to the punches and enable the voter to thereby determine the character of his vote by the location of the punch marks transversely of the tally sheet, and an indicator connected with the adjustable part whereby the adjustment of the latter may be determined, substantially as and for the purpose specified. 3rd. In a voting machine, the combination of a casing, supports for a tally sheet within the casing, mechanism for feeding said sheet, a punch carrier within the casing having a series of punches arranged to perforate the tally sheet, said carrier being movable transversely of the sheet, mechanism controlled by the voter for adjusting the punch carrier to determine the character of his vote by a transverse location of the punch holes in the sheet, a series of push knobs movable in guides in the casing, and each having an extended inner face whereby an operative relation between it and the accompanying punch is maintained throughout all the adjustments of the latter, substantially as and for the purpose specified. 4th. In a voting-machine, the combination of a casing, supports for a tally-sheet within the casing, mechanism for feeding said sheet, a punch-carrier within the casing having a series of punches arranged to perforate the tally-sheet, said carrier controlled by the vote for adjusting the punch-carrier to determine the character of his vote by the transverse location of the punch-holes in the sheet, a series of push-knobs movable in guides in the casing and co-operating with the punches, and a movable ballot engaged with the punch-carrier and adapted to indicate at the exterior of the casing the position of said carrier, substantially as and for the purpose specified. 5th. In a voting-machine, the combination of a

casing, supports for a tally-sheet within the casing, mechanism for feeding said sheet, a movable punch-carrier within the casing having a series of punches, mechanism controlled by the voter for adjusting the punch-carrier and its punches, a series of push-knobs movable in fixed guides in the casing and adapted to operate said punches, and a two-part indicating ballot composed of a slotted part affixed to the casing and a pointed part engaged with the punch-carrier and movable with the latter behind the slotted part. 6th. In a voting-machine, the combination of a casing, supports for a tally-sheet within the casing, mechanism for feeding said sheet, a punch-carrier within the casing having a series of punches, an operating shaft journaled in the casing and provided with a pinion meshing with a rack on the punch carrier, and a yielding detent device whereby the carrier may be yieldingly arrested in each of the operative positions to which it may be adjusted. 7th. In a voting-machine, the combination of a casing, supports for a tally-sheet, mechanism for feeding said sheet, a punch-carrier movable crosswise of the sheet and having a series of retracted punches, punch-operating push-knobs movable in fixed guides in the casing, means for moving the punch-carrier crosswise of the sheet, and means for preventing contact of the punches with the sheet while the carrier is in motion, substantially as and for the purpose specified. 8th. In a voting-machine, the combination of a casing, supports for a tally-sheet, mechanism for feeding said sheet, a punch-carrier movable crosswise of the sheet and having a series of retracted punches, punch-operating push-knobs movable in fixed guides in the casing, means for moving the punch-carrier crosswise of the sheet, and means for preventing contact of the punches with the sheet while the carrier is in motion, said means comprising a series of teeth or inclines affixed to the carrier, a slide adapted to be forced outwardly by one of said teeth when the carrier is in motion, and a pressure device between said slide and the push-knobs through which either push-knobs may be pressed outwardly, as set forth. 9th. In a voting-machine, the combination of a casing, supports therein for a tally-sheet, mechanism for feeding said sheet, a punch-carrier having a series of punches, a punch-operating push-knobs movable in fixed guides in the casing, and a push-knob operating lever formed to act on the knobs simultaneously and pivoted on the exterior of the casing so as to be capable of swinging out to one side to uncover the push knobs, substantially as and for the purpose specified. 10th. In a voting-machine, the combination of a casing, supports therein for a tally-sheet, mechanism for feeding said sheet, a punch-carrier having a series of punches, punch-operating push-knobs movable in fixed guides in the casing, and a laterally swinging push-knob operating lever pivoted in the exterior of the casing and having an extended cross-bar to operate in the knobs, substantially as and for the purpose specified. 11th. A voting-machine comprising a tally-sheet, a series of punches adapted to perforate ballot records in said sheet, and means for feeding the sheet endwise first in one direction and then in the opposite direction, one feed movement being longer than the other, whereby the order of the ballot records is made irregular. 12th. A voting-machine comprising a tally-sheet, a series of punches adapted to perforate ballot records in said sheet, a delivering and a receiving roll with which the ends of the sheet are engaged, an oscillatory lever having means for positively turning a receiving roll in one direction to give the sheet a forward feed movement, a back-stop whereby a limited backward movement of the receiving-roll is permitted, a driver or actuator frictionally connected with the delivering-roll, and a connection between said actuator and the oscillatory lever, whereby a backward movement of said lever is caused to rotate the actuator backwardly and thus rotate the delivering-roll backwardly as far as the said back-stop will permit, the sheet being thus given a backward feed movement which is shorter than its forward movement. 13th. A voting-machine comprising a tally-sheet, a series of punches adapted to perforate ballot records in said sheet, a delivering-roll and a receiving-roll with which the ends of the sheet are engaged, a swinging lever having a dog engaging a ratchet on the receiving-roll, a back-stop arranged to permit a limited backward rotation of the receiving roll, an actuator frictionally engaged with the delivering-roll, a swinging-lever having a dog adapted to engage said actuator, and a link connecting the two levers. 14th. A voting-machine comprising a tally-sheet, a series of punches adapted to perforate ballot records in said sheet, a sheet-delivering roll and a sheet receiving roll, connected swinging-levers having dogs for operating said rolls, and means for holding said dogs retracted, and thereby permitting the free rotation of the rolls for the quick transference of the sheet from one roll to the other. 15th. A voting-machine comprising a sheet-delivering roll and a sheet-receiving roll, and connected swinging levers having means for actuating said rolls, each lever being composed of jointed sections whereby the levers may be folded within the casing of the machine. 16th. A voting machine comprising in its construction a face-plate provided with slots, a ballot-adjusting hand-wheel *f*<sup>2</sup>, and a shield *i* secured to said machine about the wheel *f*<sup>2</sup> constructed and arranged to conceal said wheel from the view of all except the operator, but to permit the hand of the operator to be inserted to manipulate said wheel, substantially as and for the purpose set forth. 17th. In a voting machine, the combination of an adjustable ballot, a series of registers or recorders, each representing several candidates for the same office, a single button for each register or recorder, and means independent of said button for selecting the particular registers or recorders to be operated, whereby a single button may be employed to vote for all can-

didates for the same office, and it cannot be told by watching the voter's hand on the button for which candidate he is voting, substantially as and for the purpose specified.

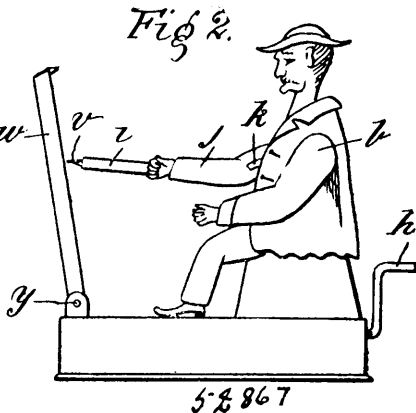
**No. 52,866. Apparatus and Method for Use in Teaching Swimming.** (*Appareil et méthode pour enseigner à nager.*)



William James Norley, Park Road, Portsmouth, Hampshire, England, 9th July, 1896, 6 years. (Filed 13th April, 1896.)

*Claim.*—1st. An apparatus to be used in teaching swimming, consisting essentially of a pole, which can be extended horizontally across a swimming bath, and a number of strips of webbing or other similar suitable material attached to and descending from the pole in such manner as to form loops for supporting the pupil, substantially as described and shown. 2nd. In an apparatus to be used in teaching swimming, the combination of a pole which can be extended horizontally across a swimming bath, a number of strips of webbing or other similar suitable material attached to and depending from the pole in such manner as to form loops for supporting the pupil, and a depending rope in the centre of or midway between each loop, for the purpose of enabling a pupil to get into and out of the loops, substantially as described and shown. 3rd. In an apparatus for use in teaching swimming, the combination of a pole A, supports E F for the same, the bands a, the spring hooks B, the ropes b, and the looped bands C, all arranged in the manner and for the purpose hereinbefore described. 4th. In an apparatus for use in teaching swimming, the combination of a number of poles arranged, connected and supported substantially in the manner and for the purpose described and shown. 5th. The system or method of tuition in swimming by the use of the apparatus herein described and claimed, which method may be directed and conducted by means of numbers and words, substantially as herein described. 6th. The system or method of tuition in swimming by the use of the apparatus herein described and claimed, whereby the art of swimming may be entirely taught before entering the water, substantially as described. 7th. For use in the system or method hereinbefore described and claimed, the stool or trestles, and table, substantially as shown and described.

**No. 52,867. Mechanical Toy and Advertising Machine.** (*Jouet mécanique et machine d'annoncee.*)

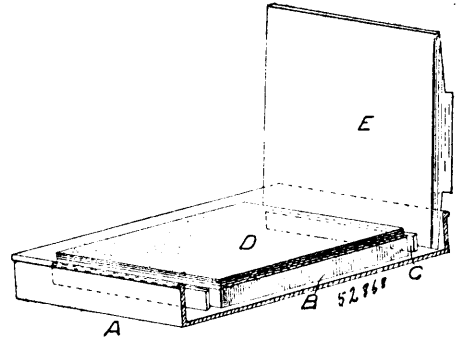


Caroline Spilsburg Pocock, Wandsworth, Surrey, England, 9th July, 1896; 6 years. (Filed 1st April, 1896.)

*Claim.*—1st. In a mechanical toy and advertising machine, the combination of a manikin mounted on a base with mechanism worked by a handle for operating the pencil on the easel, substantially as herein described. 2nd. In a mechanical toy and advertising machine, the combination of the discs or cams a, a', spindle c, ratchet wheel d, set pin e, worm f, driving shaft g, handle h, pencil bar i, arm j, manikin k, crank l, vertical hollow shaft l, bar m, lever n, peg o, lever p, bend q, lever r, spiral springs s, spindle t, connecting bar u, pencil v, easel w, spring x and bar y, mounted on and in a base or platform, substantially as herein described and according to the accompanying drawing. 3rd. In a mechanical toy and advertising machine, the combination of the pieces of mechanism varied

in such a manner so as to suit the requirements hereinbefore described in this specification, driven by hand or any other power, for the purpose specified. 4th. In a mechanical toy and advertising machine, the combination of mechanism, consisting of a figure or manikin which shall be capable of drawing a figure or writing upon paper placed before it, substantially as described.

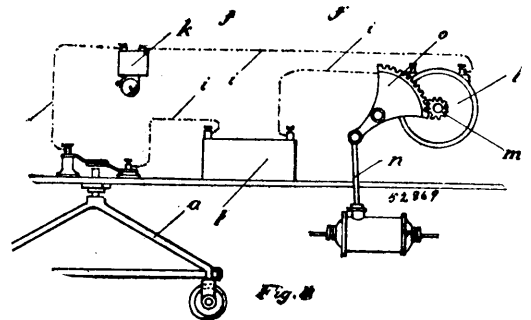
**No. 52,868. Device for use in Press Copying.** (*Appareil en usage pour presses à copier.*)



Wallace Stevens Hampshire, Mount Vernon, New York, U.S.A., 9th July, 1896; 6 years. (Filed 7th April, 1896.)

*Claim.*—A dampening device for use in press-copying, comprising a tray having a raised marginal rim and adapted to receive water, a block held in said tray and adapted to support the sheets to be moistened, and a cover adapted to fit in the tray over the sheets on said block, said cover being provided along its opposite sides with inclined or bevelled surfaces, the lower portions of which are arranged below and adjacent the opposite marginal edges of the said pan, substantially as set forth.

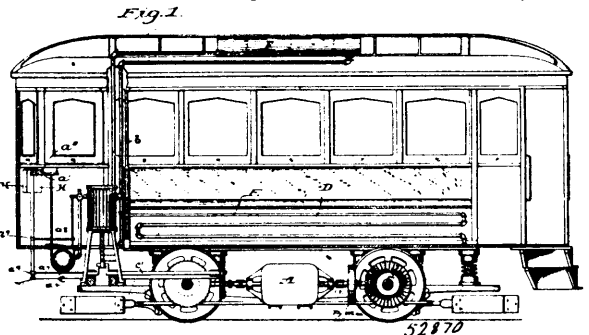
**No. 52,869. Means for preventing Accidents on Railroads.** (*Moyen d'empêcher les accidents sur les chemins de fer.*)



Hermann Biermann, 5a Paradies-Strasse, Breslau, Silesia, Prussia, Germany, 9th July, 1896; 6 years. (Filed 30th March, 1896.)

*Claim.*—Means for the prevention of the derailing of railway trains while in motion, due to breakage of wheels, axles and springs, consisting of frames with rollers thereon, said rollers being adapted not to touch the rails whilst the train is running under normal conditions, and to come into action and into contact with the rail, in case of breakage of the wheel or axle, owing to dropping of the carriage at the part of breakage, substantially as set forth.

**No. 52,870. Self-Propelling Vehicles, Boats, etc.** (*Propulsion automatique de voitures, vaisseaux, etc.*)

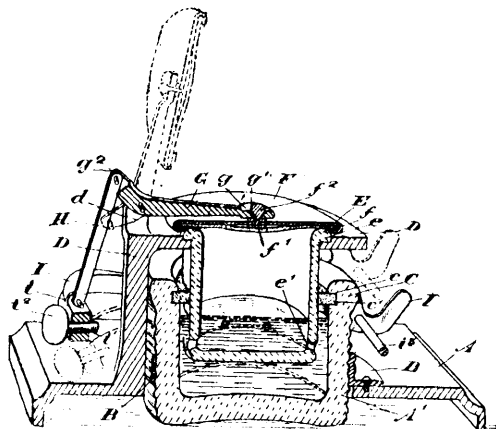


George Arthur Washburn, Cleveland, Ohio, U.S.A., 9th July, 1896; 6 years. (Filed 19th November, 1895.)

*Claim.*—1st. The combination with a driving axle or shaft and a prime-mover for rotating the same, of a dynamo-motor connected with and adapted to be driven by the prime-mover, means for connecting and disconnecting the dynamo-motor and driving axle or shaft independent of the prime-mover, an electric accumulator arranged and adapted to have electric energy stored therein by the dynamo-motor, and means for automatically actuating the dynamo-motor as an electric motor by the energy stored in the accumulator to independently rotate or to assist in rotating the driving axle or shaft, substantially as set forth. 2nd. The combination with a driving shaft or axle and a prime-mover for rotating or assisting in rotating the same, of a dynamo-motor, connected with the prime-mover and with the driving axle or shaft, means for connecting and disconnecting the dynamo-motor and driving shaft and an electric accumulator connected with the dynamo-motor so as to be charged thereby, the electrical connections being such that when the E.M.F. of the accumulator is greater than the E.M.F. of the dynamo-motor the latter will be automatically transformed into an electric motor and will be adapted either alone or in conjunction with the prime-mover to rotate the driving shaft, substantially as set forth. 3rd. The combination with a driving axle or shaft and a prime-mover for rotating or assisting in rotating the same, of a dynamo-motor connected with and adapted to be driven by the prime-mover and also connected with and adapted to rotate the driving axle independently of the prime-mover or in conjunction therewith, and an electric accumulator adapted to have electric energy stored therein by the dynamo-motor while operating as an electric generator, and to expand such stored energy in operating the dynamo-motor as an electric motor to rotate or assist in rotating the driving axle or shaft, the transformation of the dynamo-motor into a generator or a motor being solely due to and automatically effected by the relative E.M.F. of the accumulator and the opposing E.M.F. of the dynamo-motor, substantially as set forth. 4th. The combination with the driving shaft or axle of a movable conveyance, of a prime-mover, a dynamo-motor and means for connecting the prime-mover and dynamo-motor with and disconnecting them from the driving shaft or axle, and an electric accumulator connected with the dynamo-motor so that the dynamo-motor is automatically transformed into and serves either as an electric generator or electric motor according as the E.M.F. of the accumulator is less or greater than the opposing E.M.F. of the dynamo-motor, substantially as set forth. 5th. The combination with the driving shaft or axle of a movable conveyance, of a prime-mover, a dynamo-motor and means for connecting the prime-mover with the driving shaft or axle, and for connecting and disconnecting the dynamo-motor and driving axle or shaft so that the prime-mover may simultaneously actuate the dynamo-motor and driving shaft, and also so that the prime-mover and dynamo-motor may simultaneously actuate the driving shaft or axle, and an electric accumulator connected with the dynamo-motor, the connections and arrangement being such that the transformation of the dynamo-motor into a generator or motor is automatically effected by and is due to the relative E.M.F. of the accumulator and opposing E.M.F. of the dynamo-motor, substantially as set forth. 6th. The combination with the driving shaft or axle of a movable conveyance, of a prime-mover the speed of which varies with the load imposed upon the driving shaft or axle, a dynamo-motor, means for connecting and disconnecting the dynamo-motor and driving axle or shaft and means for simultaneously transmitting the power of the prime-mover to the driving shaft or axle and the dynamo-motor, of an electric accumulator, and means for transmitting the energy stored therein through the dynamo-motor to the driving axle or shaft, the connections and arrangement of parts being such that the dynamo-motor is automatically transformed into either a generator or motor solely by the relative E.M.F. of the accumulator as compared with the opposing E.M.F. of the dynamo-motor, substantially as set forth. 7th. The combination with the driving shaft or axle of a movable conveyance, of a dynamo-motor, a prime-mover, the latter being arranged and connected to simultaneously actuate both the dynamo-motor and the driving shaft, means for connecting and disconnecting the dynamo-motor and the driving axle or shaft, of an electric accumulator, and suitable mechanism and connections whereby the energy stored in the accumulator may be utilized in actuating the driving shaft directly by the dynamo-motor and independently of the prime-mover, substantially as set forth. 8th. The combination with the driving shaft or axle of a movable conveyance and a prime mover, of a dynamo-motor adapted to operate in opposite directions either as a generator or as a motor, an electric accumulator and reversing switch, the connections and arrangement of parts being such that the prime-mover may rotate the driving shaft or axle and also the dynamo-motor in either direction and cause the latter to store electrical energy in the accumulator, which energy may be utilized in operating the dynamo-motor in either direction as a motor, substantially as set forth. 9th. The combination with the driving shaft or axle of a movable conveyance, of a prime-mover, a dynamo-motor, and means for connecting and disconnecting the prime-mover and dynamo-motor and means for throwing the prime-mover and dynamo-motor into or out of engagement with the driving shaft or axle, substantially as set forth. 10th. The combination of a prime-mover and a dynamo-motor, an electric accumulator, electric connections between said dynamo-motor and the accumulator, with a circuit controlling device interposed in such circuit, a valve or other means for controlling the fuel supply to the prime-mover, and means for simultaneously reversing

the current supply to the said dynamo-motor and closing the fuel supply to the prime-mover, substantially as set forth. 11th. The combination with the driving axle or shaft of a movable conveyance, a prime-mover, a dynamo-motor, means for throwing the prime-mover and dynamo-motor into and out of engagement with the driving axle or shaft, an electric accumulator and suitable switch and controlling devices in circuit therewith whereby the dynamo-motor may be actuated to operate the prime-mover, substantially as set forth. 12th. The combination with an axle or shaft to be driven, of a dynamo-motor, a prime-mover, and means whereby the power of the prime-mover may be transmitted to the dynamo-motor alone, or simultaneously to the dynamo-motor and the driving axle or shaft, substantially as set forth.

#### No. 52,871. Ink Stand. (Encrier).



52871

James Spencer Parmenter, Woodstock, Ontario, Canada, 9th July 1896; 6 years. (Filed 28th October, 1895.)

*Claim.*—1st. The combination with the well and cover and lever connected to the cover and pivoted on the standard attached to or forming part of the base of the stand, of a connecting rod, a U-shaped lever pivoted on lugs on the stand and weighted to the rear and receiving crochets at the front of this lever for the reception of a pen or similar article, as and for the purpose specified. 2nd. The combination with the well and cover and lever connected to the cover and pivoted on the standard attached to or forming part of the base of the stand, of a connecting rod, a U-shaped lever pivoted on lugs on the stand and weighted to the rear, an adjustable screw provided with a weighted head extending from the weighted end of the lever, and a receiving crotch at the front of this lever for the reception of a pen or similar article, as and for the purpose specified. 3rd. In combination, the base, the standard supported therefrom, the ink well supported by the standard, the arm intermediately pivoted to said standard, the cover carried by the forward end of said arm, the ears extending from said base, a U-shaped lever pivoted to said ears and having forwardly-extending ends, the central portion of said lever being weighted, the link connecting said weighted portion to the rear end of the lever carrying said cover, and the supplemental adjustable weight connected to said central portion, substantially as and for the purpose specified. 4th. The combination with the well and means for adjusting it vertically in the stand, of a supplemental well, means for supporting it within the main well, and openings at the bottom of the supplemental well, as and for the purpose specified. 5th. The combination with the well and means for adjusting it vertically in the stand, of a supplemental well, means for supporting it within the main well, openings at the bottom of the supplemental well and a rubber ring inclosing the annular space between the supplemental well and main well, as and for the purpose specified. 6th. The combination with the supplemental well suitably supported and provided with holes at the bottom, of the main well externally threaded and held in a correspondingly threaded ring attached to or forming part of the base, as and for the purpose specified. 7th. The combination with the main well suitably supported in the base, of a supplemental well having holes at the bottom connecting it with the main well and having an outwardly-extending rim at the top and a standard attached to or forming part of the base and provided with a forwardly-extending ring upon the inner edges of which the rim of the supplemental well rests, as and for the purpose specified.

#### No. 52,872. Electrical Exchange System.

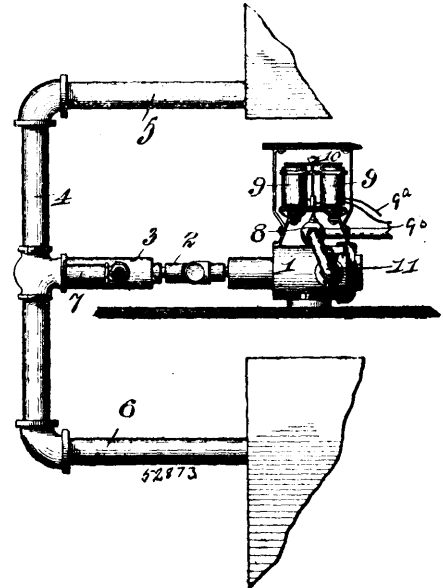
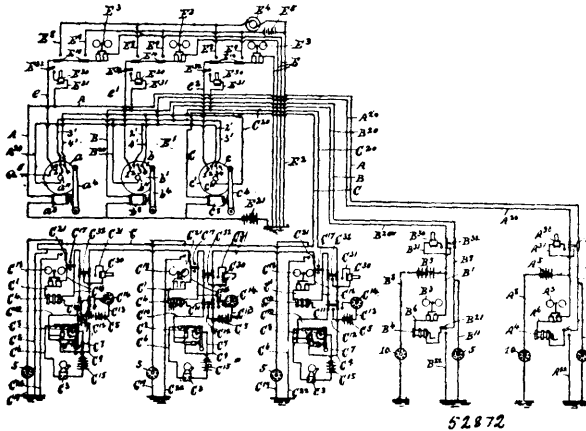
(Système d'échange électrique.)

George William Hey and Arthur Edward Parsons, both of Syracuse, New York, U.S.A., 10th July, 1896; 6 years. (Filed 10th Feb., 1896.)

*Claim.*—1st. An electrical exchange system, the same consisting of a series of metallic circuits as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, and an auto-

matic switching device, as *a*, suitably connected in said circuits and provided with means operated by electric currents passed over one

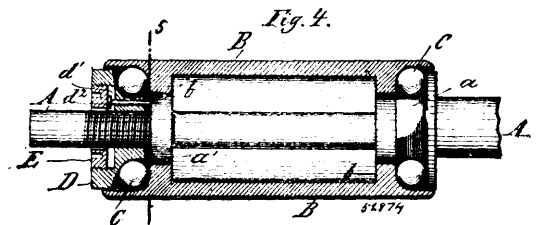
connected by the stem thereof to coil magnets, said magnets being connected by one wire to the engine and by a similar wire to a brush



of the wires of said circuits, substantially as and for the purpose described. 2nd. In an electrical exchange system, the combination of a series of metallic circuits, as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, each provided with transmitting, receiving, and signalling devices, and an automatic switching device, as *a*, connected to said circuits and provided with means operated by electric currents passed over one of the wires of said circuits, substantially as and for the purpose specified. 3rd. An automatic electrical exchange system comprising a series of metallic circuits, as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, each circuit being provided with an automatic switching device, as *a*, connected in one conductor as A, thereof and each switching device being provided with connections as 3<sup>1</sup>, 4<sup>1</sup>, to the corresponding conductors of the remaining circuits, a movable member as *a*<sup>2</sup>, connected to said conductor as A, of each metallic circuit, and means operated by electric currents passed over one of the wires of the metallic circuit connected with said switching device, substantially as set forth. 4th. An automatic electrical exchange, the same comprising a series of metallic circuits as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, sub-stations as C<sup>1</sup>, for one of said circuits, an automatic switching device as *a*, connected to said circuits, and provided with means operated by electric currents passed over the circuit provided with the sub-stations, and means, as 5, at each sub-station for controlling the action of said automatic switching device, substantially as and for the purpose described. 5th. An electrical exchange system, the same comprising metallic circuits as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, having corresponding wires, as A, B, C, normally connected together and their opposite wires as A<sup>20</sup>, B<sup>20</sup>, C<sup>20</sup>, normally disconnected, and an automatic switching device as *a*, operated by electric currents passed over one of said circuits for connecting the normally disconnected wires, substantially as and for the purpose set forth. 6th. An electrical exchange system, the same comprising metallic circuits as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, having corresponding wires as A, B, C, normally connected together and their opposite wires as A<sup>20</sup>, B<sup>20</sup>, C<sup>20</sup>, normally disconnected wires as E, normally connected to disconnected wires of the metallic circuits, and an automatic switching device as *a*, connected to said metallic circuits and operated by electric currents passed over one of said circuits, substantially as and for the purpose specified. 7th. The combination in an automatic switching device as *a*, connected to a metallic circuit as AA<sup>20</sup>; of a series of fixed terminals as 3, 4, a movable terminal as *a*<sup>2</sup>, an electro-magnet as *a*<sup>3</sup>, connected to one of the wires of said metallic circuit, mechanism connected to the movable terminal and operated by said magnet for connecting the movable terminal as *a*<sup>2</sup>, with any one of the fixed terminals as 3, 4, and a series of wires as B, C, of independent metallic circuits connected to said fixed terminals, substantially as and for the purpose described. 8th. In an automatic electrical exchange system, the combination of a main station as E<sup>1</sup> having one or more signals as E<sup>2</sup>, a series of metallic circuits as AA<sup>20</sup>, BB<sup>20</sup>, CC<sup>20</sup>, leading to the main station, corresponding wires as A, B, C, of each circuit being normally connected to a signal at the main station, ground connections for the opposite ends of said wires, a series of switching devices as *a*, *b*, *c*, at the main station, magnets as *a*<sup>3</sup>, *b*<sup>3</sup>, *c*<sup>3</sup>, at the main station, connected to the latter wires and to said switching devices for operating the same, and mechanism as 5, at the opposite ends of the latter wires for controlling the action of said magnets, substantially as and for the purpose specified.

engaging the centre rail of the track, substantially as shown and described. 3rd. In an electric signal and automatic cut-off, a magnet secured on the truck of the engine and connected by a wire to a brush engaging the centre rail of the track, and being also connected to the coil magnets arranged on the air cylinder, substantially as shown and described. 4th. In an electric signal and cut-off, a track battery located at the side of the track and connected by wires to the rails thereof, substantially as shown and described. 5th. In an electric signal and automatic cut-off, a local battery located at the side of the track, and connected to one rail thereof, to the relay battery, and to the centre rail of the track, substantially as shown and described. 6th. In an electric signal and automatic cut-off, a relay battery located at the side of the track and connected to both rails of the track, and to the local battery, substantially as shown and described. 7th. In an electric signal, a valve consisting of a casing, a valve stem carrying guides and provided with a double valve and seats, an air exhaust together with a collar and shaft for the reception of the pin, in combination with a spring and suitable means to automatically operate the said valve, substantially as described and for the purposes set forth. 8th. A valve consisting of a casing, a valve stem carrying guides and provided with a double valve and air exhaust, in combination with a spring and means to automatically operate said valve, substantially as described and for the purpose set forth. 9th. A valve consisting of a casing, a valve stem carrying guides and provided with a double valve, and seats formed in the casing, and air exhaust arranged within said casing, in combination with a removable collar and spring and means to automatically operate said valves, substantially as shown and for the purpose set forth. 10th. In an electric signal, a semiphore signal and operating lever located at the side of the track, said lever being connected by wires to the rails of the track, substantially as shown and described and for the purpose set forth.

**No. 52,874. Ball-bearing. (Coussinet à boule.)**



**No. 52,873. Electric Signal. (Signal électrique.)**  
Charles Holtmann, Pittsburg, Pennsylvania, U.S.A., 10th July, 1896; 6 years. (Filed 11th October, 1895.)

*Claim.*—1st. In an electric signal and automatic cut-off, an air cylinder having a connecting pipe and carrying a piston, said piston operating in an air valve connected to a pipe leading to the main reservoir and to a pipe leading to the air-brake, substantially as shown and described. 2nd. In an electric signal and automatic cut-off, an air cylinder as described, and carrying on its top a valve

Peter Francis Turner, New York, State of New York, U.S.A., 10th July, 1896; 6 years. (Filed 11th May, 1896.)

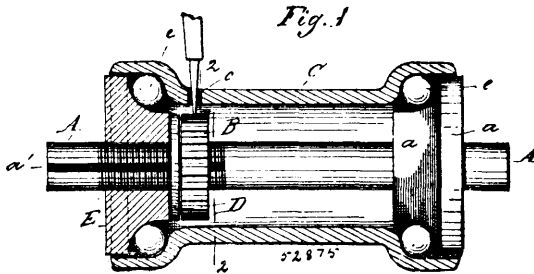
*Claim.*—1st. A ball-bearing having the shaft or axle provided with an annular flange located between the ball-chambers of the bearing and a screw-nut forming a wall of one ball-chamber, provided with one or more screw-holes into which screw-pins are screwed, which rest on the said flange of the shaft, substantially as set forth. 2nd. A ball-bearing comprising a shaft having an annular flange, a sleeve provided with inwardly-extending conical or curved flanges, a conical or curved head on one end of the shaft, a conical

or curved screw-nut having one or more traversing screw-holes screwed upon the other end of the shaft, series of balls located in the chambers created by the conical or curved portions of the flanges of the sleeve and the head of the shaft and the screw-nut respectively, and one or more screw-pins screwed into the screw-holes of the screw-nut, and resting on the said flange, substantially as set forth.

3rd. In a ball-bearing having the ball-chambers formed by a head of the shaft on one end and a screw-nut on the other end of the shaft and inwardly-extending flanges of a sleeve which encloses the shaft, an annular flange fixed upon the shaft, adjustable pins projecting through the screw-nut upon the said flange, and a device by which said pins are kept in position in the said flange, substantially as set forth.

4th. In a ball-bearing having the ball-chambers formed by a head of the shaft on one end and a screw-nut on the other end of the shaft, and inwardly-extending flanges of a sleeve which encloses the shaft, an annular flange fixed upon the shaft, adjustable pins projecting through the screw-nut upon the said flange, and a set-screw sunk and screwed into the said screw-nut upon the heads of the said pins to hold them in position, substantially as set forth.

**No. 52,875. Ball-bearing.** (*Coussinet à boule.*)

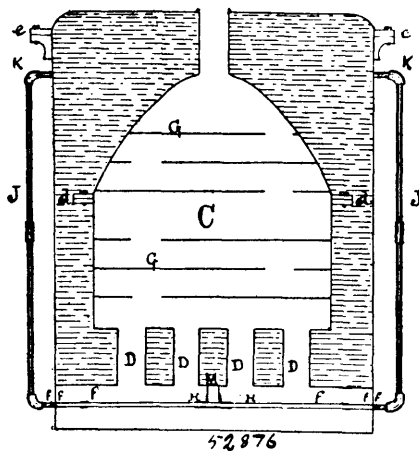


Peter Francis Turner, New York, State of New York, U.S.A., 10th July, 1896; 6 years. (Filed 11th May, 1896.)

*Claim*.—1st. In a ball-bearing, a screw-threaded shaft, a ribbed or serrated annular screw screwed on the shaft, a screw-nut screwed on the shaft against the said annular screw, and a sleeve enclosing the shaft and having an aperture to reach the annular screw from outside, substantially as and for the purpose set forth. 2nd. In a ball-bearing, a screw-threaded shaft having a longitudinal recess, an annular screw screwed upon the threaded portion of the shaft, a washer having an inwardly-extending projection located in the said recess, a screw-nut screwed on the shaft against the washer and the annular screw, and a sleeve enclosing the said shaft and being provided with an aperture to reach the annular screw from outside, the ball-chambers being formed by a head on one end and the said screw-nut on the other end of the shaft respectively, and the end portions of the sleeve, substantially as set forth.

**No. 52,876. Hot Water Furnace.**

(*Fournaise à eau chaude.*)



Lucien N. Fortier, Ottawa, Ontario, Canada, 10th July, 1896; 6 years. (Filed 6th July, 1896.)

*Claim*.—1st. In a water furnace or boiler, an outer cylindrical shell provided with an inner shell of a spherical, parabolical or cylindrical character both concentrically placed and made to enclose a water space provided with circulation tubes and a spiral water heater. 2nd. In a water furnace or boiler, an inner shell of spherical, parabolical or cylindrical type, having dependent heat circulation aperture, and an outlet for the residual products of combustion. 3rd. In a water furnace or boiler, a water heater constructed of two or more tubes spirally wound round a centre joined

to the shell or to each other at the centre for circulation purposes.

4th. In a water furnace or boiler, a water heater of a spiral tubular form situated under and attached to the concentric shell for the purpose set forth.

5th. In a water furnace or boiler, a water heater of a spirally tubular construction with a gas heater arrangement, for the purpose set forth.

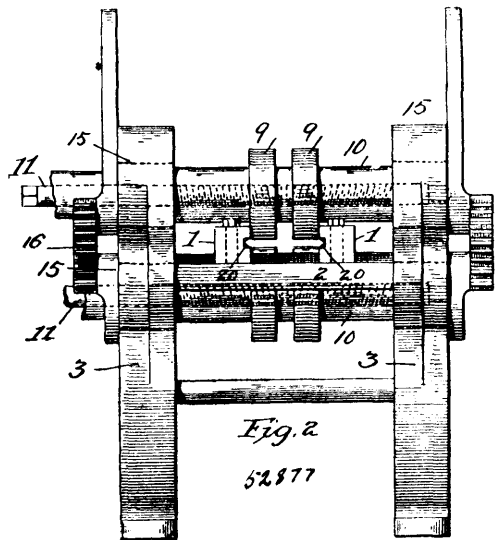
6th. In the inner shell of a concentric shell water furnace or boiler, a series of diaphragms or baffle plates having each an aperture at opposite alternate sides, for the purpose set forth.

7th. As a new article of manufacture, an S-shaped tube with a central aperture as a centre for water grates, as shown and described.

8th. As a new article of manufacture, a crossed S-shaped tube with a central aperture as a centre for water grates, as shown and described.

**No. 52,877. Machine for Trimming Leather.**

(*Machine à dégrossir le cuir.*)



Ellis Spear and Frank Leander Middleton, both of Washington, Columbia, assignees of Alonzo Louis Sweet, Chicago, Illinois, all in the U.S.A., 10th July, 1896; 6 years. (Filed 18th July, 1895.)

*Claim*.—1st. In combination in a leather trimming machine, a pair of rollers, a pair of guide bars extending across the ends of the rolls and in the plane of the bight of the same, said guide bars having grooves in the plane of the bight of the rolls to receive the edges of the leather projecting beyond the ends of the rolls and the knives in the said grooves to trim the said leather edges, substantially as described. 2nd. In combination, in a leather trimming machine, a pair of guide bars having grooves in their inner opposing faces with knives therein, the supporting frame, said bars being adjustable towards and from each other, and the upper and lower rollers arranged with their bight in the plane of the grooves of the bars, said rollers being formed in sections, one section being arranged adjacent to each guide bar and adjustable to follow the adjustments of said bar, substantially as described. 3rd. In combination, the grooved guide bars carrying the knives, the rollers consisting of rings, the shafts having the screw rods extending therethrough, and the nuts extending from the roller rings to engage the screw rod, said shaft being grooved longitudinally to receive the nuts, substantially as described. 4th. In combination, the frame, the grooved guide bars, the knives carried thereby, the rollers intermediate of the guide bars, and adjustable laterally, the supporting bars of dove-tail form fitting notches in the guide bars along with the guide bars are adjustable, substantially as described.

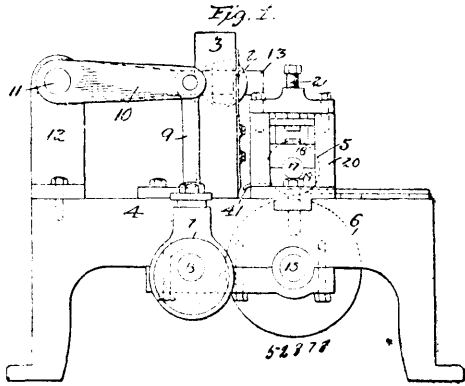
**No. 52,878. Machine for Cutting Leather.**

(*Machine à tailler le cuir.*)

Ellis Spear and Frank Leander Middleton, both of Washington, Columbia, assignees of Alonzo Louis Sweet, Chicago, Illinois, all in the U.S.A., 10th July, 1896; 6 years. (Filed 20th July, 1895.)

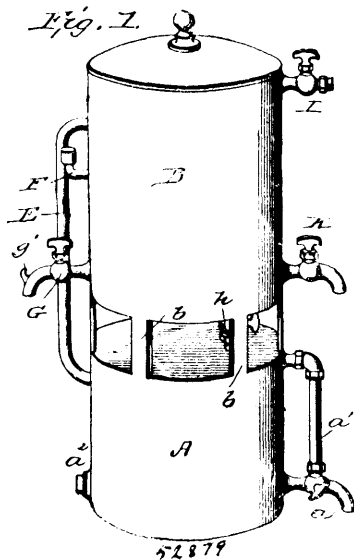
*Claim*.—1st. In combination, the cutting knife, the feeding mechanism comprising the upper and lower rollers 5 and 6, and variable driving means therefor, comprising the continuously moving pawl carrier, carrying the pawl continuously in one direction around the axis of the feed roller, the ratchet and the pair of adjustable guard plates forming a track around which the pawl runs, said plates controlling the engagement between the pawl and ratchet, substantially as described. 2nd. In combination, the horizontal table, a vertically reciprocating knife, and the feed rollers, arranged one above and one below the table and to one side of the knife, said knife being adjustable along the table laterally, toward and from the feed rollers, sub-

stantially as described. 3rd. In combination, the reciprocating knife, a cross-head carrying the same, the standard in which the



cross-head moves, means for operating the knife connected with the cross-head, and comprising the rock shaft, the arm extending therefrom and adjustably engaging the cross-head, the feed rollers, said standards with the cross-head and knife being adjustable toward and from the feed rollers, substantially as described. 4th. In combination, a table, the shaft 8, the reciprocating cutting knife, connections between said shaft and knife for operating the same, the feed rollers and connections between said feed rollers and shaft 8, comprising the gear and pinion on the roll shaft and shaft 8, respectively, the said gear being loose on the roll shaft and rotating continuously in one direction, the pawl carried by the gear, the ratchet on the roll shaft and a pair of guard plates arranged alongside each other and having cut away portions, said plates being adjustable and adapted to control the engagement of the pawl with the ratchets, substantially as described. 5th. In combination, the frame, the vertically reciprocating knife, the rock shaft, and arm connected with the knife, the shaft 8, the eccentric thereon, the pitman and arm connecting the rock shaft with the eccentric, the feed rollers, the gear loose on the feed roll shaft and engaging a pinion on the shaft 8, and the variable driving mechanism including the pawl and the ratchet with the adjustable guard plates, substantially as described.

**No. 52,879. Distilling Apparatus.**  
(Appareil de distillation.)

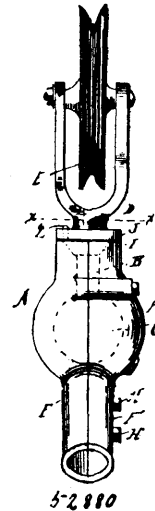


The Rolston Still Manufacturing Company, assignee of Edward L. Jackson and William Fitzgerald, all of Memphis, Tennessee, U.S.A., 13th July, 1896; 6 years. (Filed 7th January, 1896.)

*Claim.*—1st. In a water still, a condensing chamber, a pipe leading into the same, and a faucet tapped into the chamber, the inner end of said faucet being bent downward to provide a seal, substantially as shown and described. 2nd. In a water still, the combination with a boiler of a pipe leading therefrom, a condensing chamber into which said pipe leads near the upper end, a faucet tapped into the chamber near its lower end, said faucet having its inner end turned downward to provide a seal, substantially as shown and described. 3rd. In a water still, the combination with a boiler having a draw-off cock and water gauge, of a condenser located above the same,

said condenser comprising a water chamber and a condensing chamber, said condensing chamber being entirely submerged, and a pipe leading from the boiler to the condensing chamber, and a faucet for drawing off the distilled water. 4th. In a water still, the combination with a boiler having a draw-off cock and water gauge, of a condenser located above the boiler, and comprising the water chamber, and condensing chamber, a pipe leading from the boiler to the condensing chamber, and a pipe leading from the boiler into the water chamber, said pipe extending to near the top of said water chamber, substantially as shown and described.

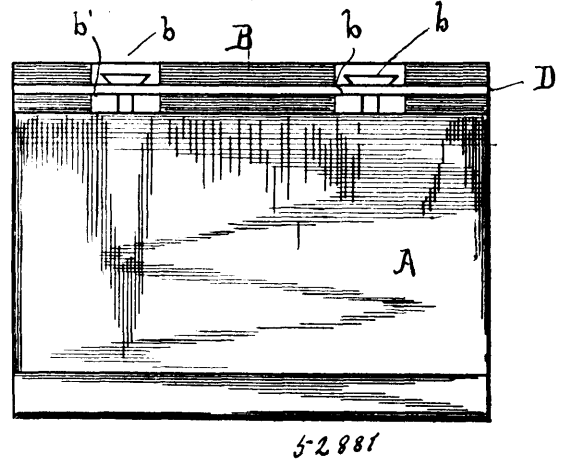
**No. 52,880. Trolley.** (Trolleye.)



John Corcoran and Alfred T. Black, both of Harrisburg, Pennsylvania, U.S.A., 13th July, 1896; 6 years. (Filed 8th January, 1896.)

*Claim.* 1st. The combination with the two shells A, having recesses to receive the standard, of a standard D fitting the recesses in the shells, and provided with a collar J having stops formed thereon, and a pin L on one of the shells and between said stops, substantially as described. 2nd. The trolley top herein described, comprising the shells A, having hollow ears F, the standard D, carrying the wheel E, and having shank B, ball C, and stop collar J, the pin L and screws H, all substantially as described and shown.

**No. 52,881. Box Cover Fastener.**  
(Attache de couvercle de boîtes.)

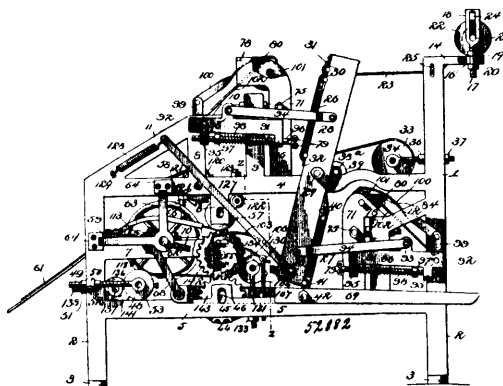


Austin Berry, Warden, Frank Wilson, Joseph Ward and John S. Clunie, all of Montreal, all in Quebec, Canada, 13th July, 1896; 6 years. (Filed 4th March, 1896.)

*Claim.*—1st. A box or receptacle, having a cover therefor provided at or near its edges with elongated holes communicating with the walls or sides of the receptacle to receive screws having elongated heads to pass up through the cover when applied to the box or receptacle, but securely binding the same down upon the box after they will have passed through and the screws will have been given a partial turn to bring the peripheries of their heads crosswise of the elongated holes substantially as and for the purposes set forth. 2nd. A box cover having a fastening device consisting of a screw, made square-oblong, or eccentric relatively to the periphery of its

head, adopted to pass freely through a hole in said cover, when the same is applied to the box, but binding the cover down upon the box through a partial turn of the screw which brings the said head crosswise of the hole in said cover substantially as set forth. 3rd. The herein described fastener for box covers consisting of screws having threaded shanks adapted to engage with the contiguous parts of a box into which it will have been driven and presenting an elongated or eccentric head to the application of the cover, through elongated holes in the cover, but preventing the removal of the cover and securing and firmly fixing the cover in position on the box when a partial turn is given the said screws substantially as set forth. 4th. The combination of a box having a lid or cover, with a metal strip set into one or all of the edges of the cover as a support and to prevent the lid or cover from warping or splitting, substantially as set forth. 5th. The combination of a box with a cover or lid having metal strips set into the end or ends thereof, said strips having holes either round, square, or elongated through which a screw or other fastener can be introduced substantially as set forth. 6th. The combination of a box with a cover or lid having a screw with its head elongated or part of its head cut away so as to render said screw capable of performing the function of holding the lid or cover securely in place by a partial turn thereof as set forth. 7th. The combination of a box with a cover or lid having either straight or circular strips or pieces of metal set into the edge thereof as a support to the cover and for a bearing for the screw heads or fasteners as set forth. 8th. A screw as a means of fastening the cover down upon a box through giving a partial turn to the elongated or eccentric head of said screw substantially as set forth. 9th. A screw as a means of releasing the cover from a box through giving a partial turn to the elongated or eccentric head of said screw substantially as set forth. 10th. A screw as a means of fastening the cover down upon a box through giving a partial turn to the elongated or eccentric head of said screw, releasing the cover by a continued or backward turn, combined with a metal strip, substantially as and for the purposes set forth. 11th. A screw as a means of fastening the cover, down upon a box through giving a partial turn to the elongated or eccentric head of said screw, releasing the cover by a continued or backward turn, combined with a metal strip having an elongated or slotted hole, substantially as set forth. 12th. A hole made in the cover of a box or in a metal strip inserted into the material of said cover so shaped as to allow the elongated or eccentric head of a screw to pass up and protrude through it, but binding the cover through a partial turn of the screw head, substantially as set forth. 13th. A hole made in the cover of a box or in a metal strip inserted into material of said cover, so shaped as to allow the elongated or eccentric head of a screw adapted to release the cover from a box through a partial turn of the screw head, substantially as set forth.

**No. 52,882. Printing Press. (Presse à imprimer.)**



Mathew Leo Whitfield Hollenbeck, Thornton, and Joseph B. Gibbs, Rosse, both in Texas, U.S.A., 13th July, 1896; 6 years. (Filed 18th May, 1896.)

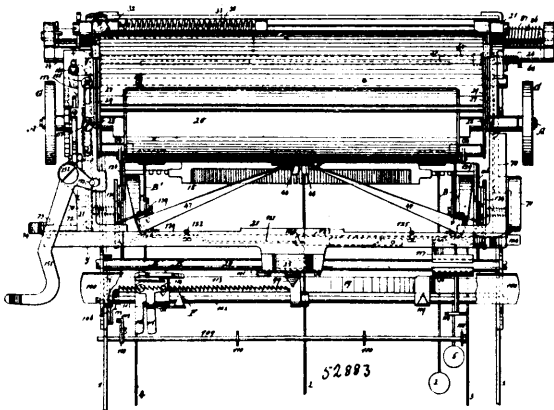
*Claim.*—1st. In a printing press, an oppositely disposed pair of horizontally extending arms formed integrally with the frame of the machine and provided with vertical perforations, in combination with a pair of vertically adjustable yokes, a roll supporting shaft journaled in said yokes, and means for adjusting both of said yokes vertically and one of said yokes horizontally for the purpose and substantially as described. 2nd. In a printing press, an oppositely disposed pair of slotted yokes mounted in perforated extensions of the machine frame, a transverse shaft mounted therein and adapted to receive and support an unprinted roll of paper, in combination with adjusting nuts engaging the threaded shanks of said yokes above and below said frame extensions for adjusting both of said yokes vertically and one yoke horizontally, and means for regulating the position of the roll of unprinted paper longitudinally of its shaft, substantially as described. 3rd. In a printing press, the combination with a stationary frame, of a pair of oppositely disposed slotted yokes provided with threaded shanks extending through vertical perforations in said frame, adjusting nuts engaging said

threaded shanks and bearing against the frame for regulating the height of said yokes and adjusting one of them in a horizontal direction, a transversely extending horizontal shaft adapted to receive a roll of unprinted paper and mounted at its ends in said yokes, laterally adjustable guard discs or collars secured upon said shaft, and a gravity brake bar superposed above and resting in frictional contact with said discs or collars and sliding at its ends in the slotted yokes, substantially as described. 4th. In a printing press, a centrally pivoted platen frame mounted on a horizontal transverse shaft, the oppositely facing platens located upon either side of said frame and upon opposite sides of the shaft on which said frame is mounted, and one or more connecting rods interposed between said platen frame and the main crank shaft, substantially as described. 5th. In a printing press, the combination with the stationary frame, of a double platen frame centrally pivoted on a transverse horizontal shaft, an upper and a lower platen secured thereto upon opposite sides of the platen frame, one above and the other below the shaft on which the platen frame hinges, a plurality of transverse rollers mounted in bearings on said platen frame and located above and below the platens in such position as to direct the paper properly across the faces of said platens, and means for vibrating said platen frame, substantially as specified. 6th. In a printing press, the combination with the main frame, of a centrally pivoted platen frame, a pair of oppositely facing platens secured to said frame upon opposite sides of the shaft on which said platen frame is hinged, a series of rollers for guiding and directing the paper across the faces of said platens, and an adjustable drying and regulating cylinder secured to the main frame in approximately the same horizontal plane with the shaft on which the platen frame hinges, substantially as and for the purpose specified. 7th. In a printing press, the combination with the stationary frame, of a double platen frame mounted on a central shaft, the oppositely facing platens secured to said frame upon opposite sides of the shaft on which the platen frame is mounted, a series of guiding rollers for directing the paper across the faces of the platen, a drying and regulating cylinder located in about the same horizontal plane with the pivotal shaft of the platen frame, and the threaded eyebolts in which said cylinder is journaled extending through perforated lugs or ears on the stationary frame and provided with nuts for adjusting and holding said cylinder, for the purpose of increasing or diminishing the length of paper between the two platens for properly spacing the impressions, substantially as described. 8th. In a printing press, the combination with the stationary frame, of a centrally pivoted platen frame, oppositely facing platens secured thereto upon opposite sides of the shaft upon which said platen frame is hinged, the main horizontal driving shaft provided with a double crank at or near either end, and the oppositely disposed connecting rods interposed between the main driving shaft and the platen frame and pivoted to said platen frame at or near the lower ends of the side bars thereof, substantially as described. 9th. In a printing press, the combination with the stationary frame, of a centrally pivoted double platen frame, a pair of oppositely facing platens secured thereto upon opposite sides of the pivotal shaft, a horizontal main driving shaft mounted in the stationary frame, connecting rods interposed between said driving shaft and the centrally pivoted platen frame, a treadle frame hinged to the stationary frame, and one or more pitmen or links interposed between the treadle frame and the main driving shaft, all arranged for joint operation, substantially as specified. 10th. In a printing press, an adjustable chase bed, a series of horizontally extending threaded eyebolts supporting said chase bed and extending through perforated ears or lugs on the stationary frame, the regulating nuts for adjusting the position of the chase bed horizontally, the hooks or lips at the lower end of the chase bed for engaging the lower edge of the chase, a vertically movable clip or hook at the upper end of the chase bed for engaging and holding the top of the chase, and the spiral spring and nut on the shank of said clip or hook for regulating the tension thereof, substantially as described. 11th. In a printing press, the combination with the stationary frame, of an adjustable chase bed, the oppositely-disposed side bars thereof provided with curved extensions at their upper portion, an ink cup adjustable with the bed and extending across between and secured at its opposite ends to said curved extensions, a revoluble ink drum located partially within said ink cup, and an adjustable scraper for removing the surplus ink from said ink-drum, substantially as specified. 12th. In a printing press, the combination with the stationary frame, and with a chase bed adjustably supported thereon, of an ink cup or well located above said chase bed and secured thereto, a positively-driven ink drum also mounted on said chase bed and revolving within the ink cup, a ratchet disc mounted on one end of said ink drum, an actuating pawl engaging said ratchet disc at one end and pivotally connected at its other end to and carried by a crank arm on the shaft of the ink roller carriage, and a supplemental pawl engaging said ratchet disc for preventing retrograde movement of the ink drum, substantially as described. 13th. In a printing press, the combination with the stationary frame, of a platen pivotally mounted on a transverse axis, a pair of feeding cylinders having their axes in parallelism to the platen axis and adapted to engage the paper between their contiguous faces, the spur gears mounted on the adjacent ends of the shafts of said cylinders for communicating motion from one to the other, a ratchet wheel mounted on the shaft of one of said cylinders, a vibrating pawl pivotally connected directly with said platen frame and resting in operative engagement with said ratchet wheel, and means for regulating the operative



throw of said pawl, substantially as described. 14th. In a printing press, the combination with the stationary frame, of a pair of feeding cylinders mounted therein and adapted to receive the paper between them and feed the same through the machine, the intermeshing gears on the adjacent ends of said cylinder, the ratchet wheel mounted on the end of one of said cylinders, the platen frame, the gravity pawl carried thereby and engaging said ratchet wheel, a supplemental pawl also engaging said ratchet wheel and located beneath the pawl carried by the platen frame, and means connected with the stationary frame for adjusting the position of the supplemental pawl for the purpose of regulating the stroke of the upper pawl and thereby the distance differentially which the feeding cylinder operated upon thereby travels, substantially as described. 15th. The combination with the stationary frame of a printing press, and with the paper-feeding mechanism, and the platen, of a winding-up roller journaled in the frame and having a ratchet wheel fast at one end, a detent for preventing backward movement of the roller, a reciprocating arm or bar pivotally connected with and actuated by the platen frame and resting in direct operative engagement with the shaft of the winding-up roller, and a tension spring for holding said arm or bar against the shaft of said roller, substantially as and for the purpose specified. 16th. In a printing press, the combination with the stationary frame, and with one of the feeding cylinders, of a series of circular cutters, markers, or rulers mounted on a shaft arranged in parallel relation to the feeding cylinder, the adjustable threaded eyebolts for supporting said shaft at its ends, an ink cup mounted upon said shaft for supplying ink to said circular markers or rulers, and the adjusting nuts on either side of the supporting lugs, through which said eyebolts pass for adjusting the eyebolts and the shaft carried thereby, and thereby forcing said circular cutters, markers or rulers with any desired pressure against the paper travelling around the feeding cylinder, substantially as specified. 17th. In a printing press, the stationary frame and the main driving shaft mounted therein, in combination with a reciprocating knife bar, a yoke or pitman interposed between a crank on the main driving shaft and said knife bar, and a kicker pivoted to the under side of said knife bar and provided with a horizontally-extending arm underlying and adapted to be acted upon by the main driving shaft, whereby the paper is directed onto a table and delivered from the machine, substantially as specified. 18th. In a printing press, a stationary frame, the feeding cylinders mounted therein, the reciprocating knife, and the regulating roller for properly spacing the paper with relation to said knife, in combination with a series of circular cutters, markers or rulers mounted on a shaft extending parallel to the shaft of the regulating roller, an ink cup suspended upon the shaft of said circular markers or rulers and means substantially as described for adjusting said circular cutters, markers or rulers toward and away from the regulating roller and forcing the same with any desired pressure against the paper passing around said regulating roller, substantially as and for the purpose specified.

**No. 52,883. Typewriter. (Clavigraphie.)**



The Wagner Typewriter Company, assignee of Franz-Xavier Wagner, both of New York, and Herman Louis Wagner, Brooklyn, all in the State of New York, U.S.A., 13th July, 1896; 6 years. (Filed 15th April, 1896.)

*Claim.*—1st. A typewriting machine comprising a frame 1, provided with bars 24 and 26 fixed respectively to the rear and to the front of the frame, a carriage frame 21 having at its rear portion eyes made to clasp and slide on said rear bar, said carriage frame being extended forward to rest on said front bar, a platen frame set loosely into the carriage frame so as to be inclosed therein, links jointed to said platen frame, and a spring-pressed rock shaft mounted longitudinally at the back of the carriage frame and to which said links are secured, substantially as described. 2nd. A carriage combined with a platen or paper roller, swinging arms connected to said roller, a shaft for said arms, a lifting spring for the roller coiled about said shaft, and a finger key made to co-operate

with the spring for lifting the roller, substantially as described. 3rd. A carriage, combined with a paper roller, swinging arms connected to said roller, a shaft to which said arms are fixed, a spring coiled about the shaft, a toothed collar loosely mounted on the shaft and engaged by the spring, and a second toothed collar fixed to the shaft and engaged by the loose collar, substantially as described. 4th. A typewriting machine frame provided at its upper portion with a fixed front bar 26, and with a fixed rear bar 24, a carriage frame made to rest and travel upon said bars, a movable track or bar 37, located between and below the level of said fixed front and rear bars, a platen frame seated loosely into and inclosed in the carriage frame, and a roller arm made to project from said platen frame down onto said movable track, said platen frame being connected to the rear of the carriage frame by links jointed to the said platen and carriage frame, substantially as described. 5th. A carriage and a vertically movable paper roller, combined with a ribbon guide made vertically movable with fixed ribbon spools and with the platen, substantially as described. 6th. A carriage and a track or way for the carriage, combined with a paper roller made shiftable independently of the carriage, a shiftable track or way for the platen, and a ribbon guide connected to the shiftable track so as to be moved by the latter, substantially as described. 7th. A carriage and actuating mechanism substantially as described for the carriage, combined with a paper roller made removable from the carriage, a lock for the paper roller, a removable frame carrying the lock and a release carried by the carriage for freeing the lock as the paper roller is inserted into the carriage, substantially as described. 8th. A carriage and actuating mechanism substantially as described for the carriage, combined with a paper roller made removable from the carriage, said paper roller having a shaft and eccentrically located catches or studs, and said carriage being provided with rotary shafts having catches or recesses adapted to engage the paper roller shaft and catches, one of said rotary shafts being made movable so as to engage and release the platen, substantially as described. 9th. A carriage frame, combined with a shiftable platen frame 27, supported by the carriage frame, a supplemental platen frame 140, a platen or paper roller carried by the supplemental platen frame, supporting studs 141 for the supplementary platen frame made to rest loosely on the platen frame, and journals for the platen made to extend through the supplemental platen frame, said platen frame being provided with shafts adapted to engage the platen journals, one of the shafts being endwise movable for detachably locking the supplemental platen frame to the platen frame, substantially as described. 10th. A platen combined with smoothing rollers, supporting arms for the rollers, toothed collars for supporting the arms, a fixed shaft for the collars, and spring-pressed toothed collars loosely mounted on the shaft and made to engage the arm-supporting collars, said spring-pressed collars being rotatable independently of the arm-supporting collars for adjusting the tension of the springs, substantially as described. 11th. A platen and a type bar, combined with a ribbon guide, a lever and link made to actuate the ribbon guide, a movable support to which the link is connected, and a key for actuating the type bar and the support, a universal bar, and arms for connecting the universal bar and the support, said type bar being detached from said support and provided with a projection or heel adapted to strike and actuate the universal bar with the arms and support toward the end of the printing movement of the type bar, substantially as described. 12th. A platen and a type bar, combined with a ribbon guide, a lever and link made to actuate the ribbon guide, a movable support to which the link is connected, a key for actuating the type bar and the support, and a vertically movable track for the platen, said lever being connected to said track so as to be actuated by the movement of the latter, substantially as described. 13th. A platen and a shiftable feed rack therefor, combined with a dog comprising a central slidable tooth and lateral non-slidable teeth, vibrating arms made to carry said teeth, a pivot common to said arms, and a connecting pin for causing said arms to vibrate in unison, the arm of the slidable tooth being slotted to slide on said pivot and pin, substantially as described. 14th. A platen and a feed rack therefor, combined with a dog for the rack, an actuating support on which the dog is movably mounted, a finger adapted to engage the dog for moving the same out of engagement with the rack, a rock-shaft fixed against the movement of the platen and rack and on which the finger is mounted, an actuating lever or arm for the shaft, and a key for engaging the lever, substantially as described. 15th. A platen and a feed rack therefor, combined with a dog for the rack, an actuating support on which the dog is movably mounted, a finger adapted to engage the dog for moving the same out of engagement with the rack, a fixed rock-shaft on which the finger is mounted, an actuating lever or arm for the shaft, and a key for engaging the lever, said shaft being provided with a stop for arresting the platen, substantially as described. 16th. A platen and a feed rack therefor, combined with a dog for the rack, an actuating support on which the dog is movably mounted, a finger adapted to engage the dog for moving the same out of engagement with the rack, a fixed rock-shaft on which the finger is mounted, an actuating lever or arm for the shaft, and a key for engaging the lever, said shaft being provided with a stop for arresting the platen, and said platen being provided with a spring-actuated or yielding rod or projection to engage the stop, substantially as described. 17th. A paper carriage and an actuating key provided with a catch or shoulder located at the forward or

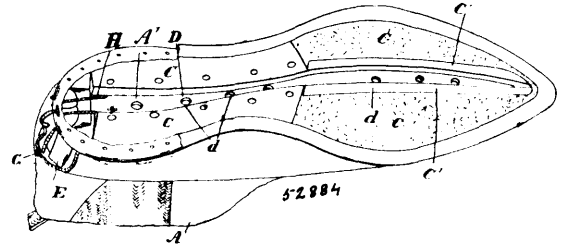
power-receiving portion of the key, combined with a forwardly-oscillating bar adapted to engage or lock said catch, a forwardly-oscillating actuating arm for said bar nominally free from said bar, and an actuating shoulder for said arm, said carriage being provided with a lip adapted to engage said actuating shoulder to actuate said arm, substantially as described. 18th. A paper carriage and an actuating key, combined with a bar adapted to engage or lock the key, a swinging arm having its free end placed in proximity to and normally out of contact with the bar, a bell hammer placed in advance of the bar in the path of the free end of the arm, and a lip on the carriage for actuating the arm, so as to make the free end successively strike the bell hammer and the bar, substantially as described. 19th. A paper carriage and an actuating key, combined with a bar adapted to engage or lock the key, an actuating arm for the bar, a rock shaft for said arm, a shoulder on said rock shaft, said carriage being provided with a lip adapted to engage the shoulder for actuating the shaft, and a bell hammer provided with an inclined movable projection along which the arm rides in its forward stroke to actuate the bell hammer, said arm on its return stroke being made to pass under or lift the projection independently of the bell hammer, substantially as described. 20th. A paper carriage and an actuating key, combined with a bar adapted to engage or lock the key, an actuating arm for the bar, a rock shaft for said arm, a shoulder on said rock shaft, a lip on the carriage for engaging the shoulder, and a bell hammer actuated by said arm, said shoulder being step shaped so as to be intermittently actuated by the carriage lip for separately actuating the bell hammer and the locking bar, substantially as described. 21st. The combination with a key, provided with an upwardly-extending and rearwardly-open hook rigidly fixed to the key, of a pivoted type arm and a crank lever pivoted to said arm, said crank lever having a pivot pin into which the rearwardly-open hook is adapted to slide or engage as the key is inserted or slid into position, substantially as described. 22nd. The combination with keys, of type arms pivoted a short distance from one end, and crank levers fulcrumed at one arm and having the other arm pivoted to short arms of the type arms, and being pivoted at their right angles to the keys, substantially as described. 23rd. The combination with keys, of type arms pivoted a short distance from one end, and crank levers having arms of unequal lengths, said crank levers being fulcrumed at the ends of their shorter arms, and having their longer arms pivoted to the type arms and being pivoted at their angles to the keys, substantially as described. 24th. A carriage and a feed rack for the carriage, combined with a dog having teeth for the alternate engagement of the rack, a bar for actuating the dog, a pivoted type arm having a shoulder at said pivot for actuating the bar, and an actuating key for the type arm, said shoulder being made narrower or contracted at said pivot and expanding or wedge shaped towards its free end, substantially as described. 25th. A platen frame having at its upper front portion a track 26 and a stop adjustably mounted on the track, in combination with a carriage frame having a front rail provided with a stop arm hinged to said front rail of the carriage and made to extend longitudinally along the same and normally in position to engage the stop on the track, and a lever fulcrumed to the front rail of the carriage and made to extend longitudinally along the same and engaging the free end of the stop arm for moving the latter to releasing position, substantially as described. 26th. A suitably actuated type arm provided with a plurality of type, in combination with a vertically movable platen, oppositely located keys for moving said platen, a lock for one of said keys, said lock having a releasing arm actuated by another of said keys and a rock shaft to opposite end portions of which said lock and releasing arm are fixed, substantially as described. 27th. A platen and a feed rack, combined with a dog for the rack, a universal bar for actuating the dog, a series of type arms with keys for actuating the universal bar, restoring arms placed to the rear of the universal bar, a rock shaft to which the restoring arms are connected, a restoring spring connected to the said rock shaft, and links made to connect the universal bar and the restoring arms, said dog being supported on said links between the universal bar and the restoring arms, substantially as described. 28th. A frame provided with a suitably actuated platen and type bar, combined with ribbon spools having frames provided with lips and releasable detents, said first named frame being provided with seats and shoulders for the engagement of the lips and detents, substantially as described. 29th. A frame provided with a suitably actuated platen and type bar, combined with ribbon spools having frames provided with lips and releasable detents, said first named frame being provided with seats and shoulders for the engagement of the lips and detents, and actuating buttons or handles for the spools, said frame being perforated for the access or passage of said handles, substantially as described.

**No. 52,884. Ventilated Boot. (Chaussure à ventilation.)**

John Staunton King, Toronto, Ontario, Canada, 13th July, 1896; 6 years. (Filed 18th February, 1896.)

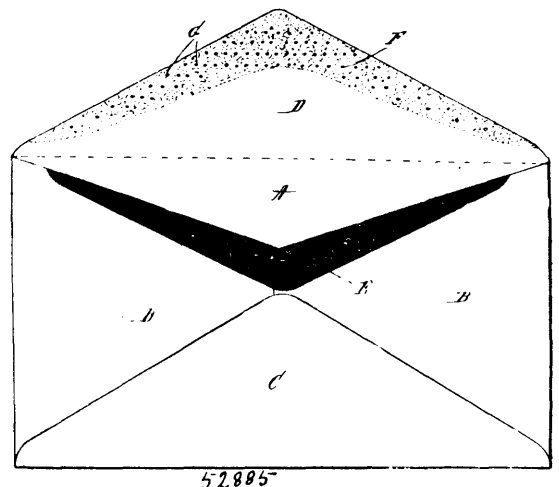
*Claim.*—1st. In a ventilated boot or shoe, the combination with the sole and heel, and inner sole and filling, of a central channel in the filling extending from the toe to the heel and provided with perforations extending through the inner sole, and a back casing comprising substantially concavo-convex outwardly and upwardly flaring plates suitably connected together and having bent forward ends

to connect with the channel, the back plates being bevelled downwardly, and eyelet holes made in the heel portion on each side of



the seam, as and for the purpose specified. 2nd. In a ventilated boot or shoe, the combination with the sole and heel and inner sole and filling, of a central channel in the filling extending from the toe to the heel and provided with perforations extending through the inner sole, and a back casing comprising substantially concavo-convex outwardly and having bent forward ends to connect with the channel, the back plate being bevelled downwardly, and a grooved rib dividing the casing centrally into two passageways and forming a seat for the seam, and eyelet holes one on each side of the heel, as and for the purpose specified. 3rd. In a ventilated boot or shoe, the combination with the sole and heel and inner sole and filling, of a central channel in the filling extending from the toe to the heel and provided with perforations extending through the inner sole, and a back casing comprising substantially concavo-convex outwardly and upwardly flaring plates suitably connected together and having bent forward ends to connect with the channel, the back plate being bevelled downwardly, and eyelet holes made in the heel portion on each side of the seam, and a filling above the eyelet holes between the lining and the outer leather, as and for the purpose specified. 4th. In a ventilated boot or shoe, the combination with the sole and heel and inner sole and filling, of a central channel in the filling arranged as specified, an end casing connected with the channel, and a thread H extending through the bottom turned in edges of the abutting seam and fastened on the inner sole, as and for the purpose specified. 5th. In a ventilated boot or shoe, the combination with the sole and heel and inner sole and filling, of the back divided solid filling forming one portion of the channel, and the side strips extending forwardly from the front end of the solid dividing filling and forming the toe portion of the channel, and the soft moist flexible filling extending between the side strips of the toe portion of the channel and the welt, as and for the purpose specified.

**No. 52,885. Safety Envelope. (Enveloppe.)**



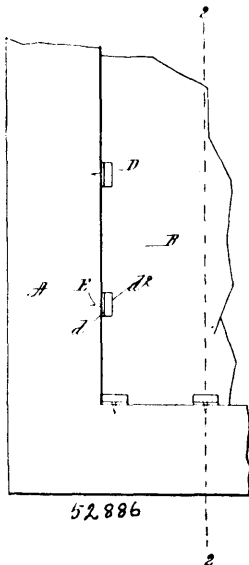
Robert Schullikann, New York, State of New York, U.S.A., 13th July, 1896; 6 years. (Filed 15th May, 1896.)

*Claim.*—1st. An envelope or other wrapper, which is provided with a flap, the inner surface of which is gummed, and said flap being also provided with numerous fine perforations which are formed in said gummed portion, and that portion of the envelope or wrapper to which the flap is adapted to be sealed being provided with suitable colouring material, which is adapted to be dissolved by steam or moisture, substantially as shown and described. 2nd. An envelope of the usual form, and provided with a flap, the inner surface of which is gummed, that portion of said envelope over which the flap is adapted to be folded being provided with suitable colouring material or ink, which is adapted to be dissolved by steam or moisture, and said flap being also provided with fine perforations, substantially as shown and described. 3rd. An envelope of the usual

form, provided with a body portion, two folded ends and a folded side, said ends and said side being sealed together, and said envelope being also provided with a flap which is gummed on its inner surface, and the perforated ends being provided on their outer surfaces with ink, or other coloured material which is adapted to be dissolved by steam or moisture, substantially as shown and described.

**No. 52,886. Means for Securing Window Glasses, etc.**

(*Moyen d'assujétir les vitres, etc., dans les fenêtres.*)

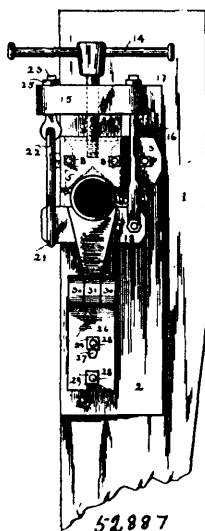


Robert Schachtelbaum, New York, State of New York, U.S.A., 13th July, 1896; 6 years. (Filed 15th May, 1896.)

*Claim.* As a new article of manufacture, the herein described fastening device for window glass and similar articles consisting of a flat piece of metal strip *d*, at one end of which is formed a shoulder or projection *d'*, adapted to press against the glass, and teeth or projections *F*, cut from said plate and formed integrally therewith and adapted to be forced into the sash to retain the device in position, as and for the purpose specified.

**No. 52,887. Combined Pipe Holder and Vise.**

(*Porte-tuyau et étau combinés.*)

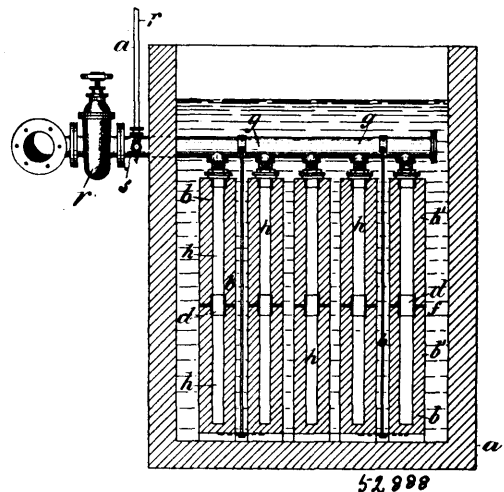


Edward P. Fitzgerald, Lena, Illinois, U.S.A., 13th July, 1896; 6 years. (Filed 16th May, 1896.)

*Claim.*—1st. In an apparatus of the character described, the combination with a base having formed therein an opening or passage for a pipe, of two clamping jaws, 5, 18, arranged on opposite sides of said opening in the base, the jaw 5 having an internally-threaded socket formed therein and opening through its outer face, a cross-head arranged beyond the outer face of the jaw 5 and

connected with the jaw 18, said cross-head having an internally threaded passage, the threads of which extend in the opposite direction to those in the socket in the jaw 5, and an operating screw provided for a portion of its length with a thread, adapted to engage the thread in the passage in the cross-head, and at one end with an oppositely extending thread which engages with the thread in the socketed jaw whereby both jaws will be simultaneously moved by the screw in opposite directions, substantially as set forth. 2nd. In an apparatus of the character described, the combination with a base provided with an aperture or passage, of two jaws, 5, 18, arranged on opposite sides of said opening in the base, the jaw 5 having an internally threaded socket which opens through the outer face thereof, a cross-head provided with an internally threaded passage in line with the aforesaid socket in the jaw 5, adjustable connections between the aforesaid socket and the jaw 18, and an operating screw provided with oppositely threaded sections, adapted to respectively engage with the thread in the cross-head and in the socket of the jaw 5, whereby said screw is adapted to simultaneously move both jaws in opposite directions, substantially as set forth. 3rd. In an apparatus of the character described, the combination with a base provided with an aperture or passage, of two jaws, 5, 18, arranged on opposite sides of said opening in the base, the jaw 5 having an internally threaded socket which opens through the outer face thereof, a cross-head provided with an internally threaded passage in line with the socket in said jaw, a rod pivotally connecting the cross-head and the jaw 18 on one side of the opening in the base, a link connected to the cross-head on the opposite side of the opening in the base and adapted to be detachably connected to the jaw 18, and an operating screw provided with oppositely extending threads adapted to respectively engage with the threaded passage in the cross-head and the socket in the jaw 5, substantially as and for the purpose specified. 4th. In an apparatus of the character described, the combination with the base and plate having openings therein the bracket or cap forming a housing, the clamping-jaw having teeth at its inner end and cut away at opposite sides forming guideways and shoulders, and the guide pins, of the right and left handed screw the inner end of which engages with a screw threaded opening in said jaw, the cross-head having a screw-threaded opening through which said screw passes, the adjustable connecting rod secured to said cross-head, the clamping plate, provided with teeth, with which said rod is connected, the link adapted to engage with said plate and the adjustable rod connected therewith and secured to the cross-head, substantially as described.

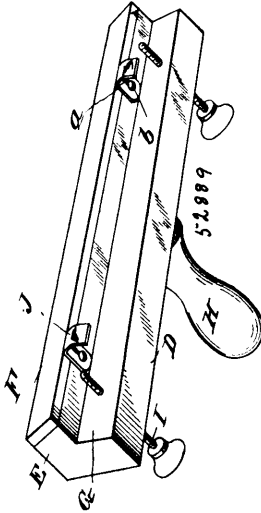
**No. 52,888. Filter. (Filtre.)**



Johann Friedrich Fischer, Worms, Germany, 13th July, 1896; 6 years. (Filed 18th May, 1896.)

*Claim.*—1st. The new or improved filter body herein described, namely, a filter body consisting of walls and an inner chamber, made without joint, *i.e.*, in one piece, and of sand and glass, burnt at a high temperature, for the purposes specified. 2nd. A filter comprising a series of hollow filtering bodies *b*, made without joint and of sand or glass, burnt at a high temperature; a pipe *g*, connecting the upper parts of said bodies together, through which the filtered water is conveyed away, and, alternately, cleansing water supplied to them; a vessel *a*, in which said bodies are disposed, in which the water to be filtered is contained, and suitable valves *s* and *r*, for controlling the flow to and from the different parts, substantially as and for the purposes set forth. 3rd. The herein described improved mode of filtering, consisting of the employment within a vessel of one or more filtering bodies *b*, and a pipe *g*, with a regulated outlet thereon such as described, whereby, by employing a constant head of water to be filtered, and the regulated outlet as described, a uniformly filtered liquid as regards quantity and quality is produced. 4th. The filter, with its filter bodies *b*, and connections as set forth.

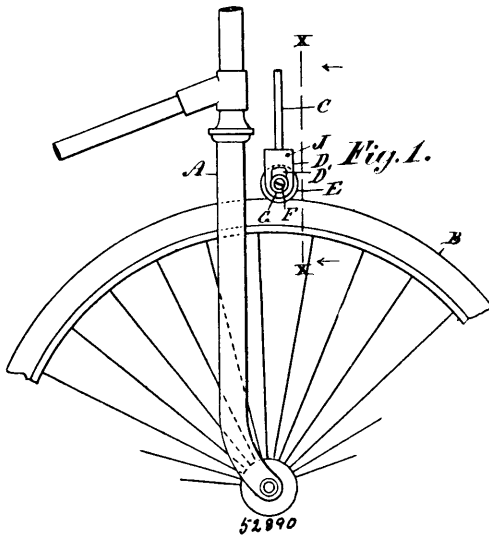
**No. 52,889. Lawn Mower Sharpener.**  
(Appareil à affûter les tondeuses de pelouses.)



Harlow H. Howe, Stanton, Michigan, U.S.A., 13th July, 1896; 6 years. (Filed 15th May, 1896.)

*Claim.*—1st. A lawn mower sharpener comprising a block, a raised abrasive bar on one edge, and a handle on the block for holding and moving the sharpener on the shear plate. 2nd. A lawn mower sharpener comprising a block, a raised abrasive bar on one edge, adjusting screws forming adjustable bearings for the block, and a handle on the block for holding and moving the sharpener on the shear plate. 3rd. A lawn mower sharpener comprising a block, an abrasive bar on one edge thereof, and the hooks on said bar adapted to engage with the shear blade to hold the sharpener in the sharpening position while the rotary cutter is being turned. 4th. A lawn mower sharpener comprising a block, a rib on one edge, an abrasive bar thereon, the adjustable hooks on said rib for the purpose described. 5th. A lawn mower sharpener comprising a block, a rib at one edge, a bevelled abrasive bar thereon, the adjustable hooks on the side of said rib, and the adjusting screws, for the purpose described.

**No. 52,890. Bicycle Brake.** (Frein de bicyclette.)

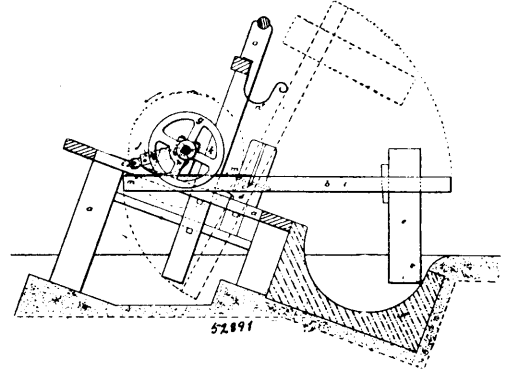


Peter MacGregor, Ottawa, Ontario, Canada, 13th July, 1896; 6 years. (Filed 16th March, 1896.)

*Claim.*—1st. In a bicycle brake, the combination with a brake rod, of an inverted U-shaped head D, pendant therefrom, a brake roller E, having a concave periphery and journalled in said head through elongated holes, and a flat steel S-shaped spring H, having one end fixed within the head and the free end bearing on the roller, near the ends, whereby the roller will bodily yield to pressure when the brake is applied, as set forth. 2nd. A bicycle brake, comprising an inverted U-shaped frame or head D, having vertical slots D', a roller E, journalled to said head through said slots and and having a concave periphery and a spring, depressing the roller

against the resistance of the tire, as set forth. 3rd. An improved brake for bicycles, comprising an inverted U-shaped frame or head and means for operating it by either foot or hand power relative to the wheel, and having vertical slots D' therein, a roller E, having a concave periphery and journalled to said head through said slots and a spring having one end secured to said head and the other bearing on said roller, as set forth.

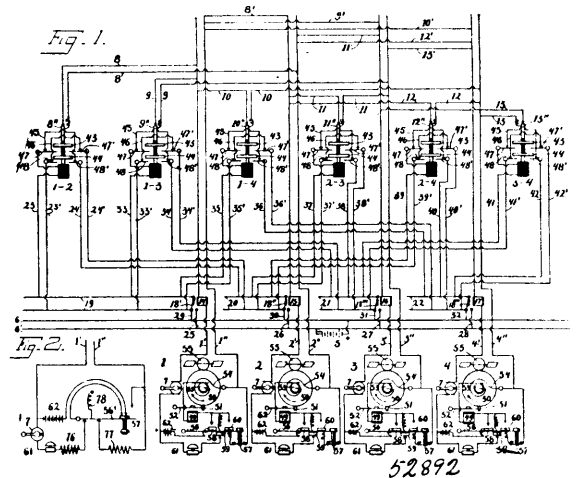
**No. 52,891. Machine for Cleaning Rice.**  
(Machine à nettoyer le riz.)



Gim Fook Yuen, Victoria, British Columbia, 13th July, 1896; 6 years. (Filed 30th November, 1895.)

*Claim.*—The combination of a cam roller wheel and frictionless plate m, each in their respective places in a rice cleaning machine, as shown and described.

**No. 52,892. Automatic Telephone Exchange System.**  
(Système d'échange de téléphone automatique.)



William Frederick Lounsbury, Owego, New York, U.S.A., 13th July, 1896; 6 years. (Filed 17th Dec., 1895.)

*Claim.*—1st. An automatic telephone exchange system, consisting of the combination of a given number of telephones located at respective sub-stations, independent electric conductors connecting each telephone with all the other telephones respectively, a circuit closer in circuit with each of the said conductors, and means located at the central station, governed by devices located at the sub-stations for controlling said circuit closers in a predetermined manner. 2nd. An automatic telephone exchange system, consisting of the combination of a given number of telephones, located at respective sub-sections, independent electric conductors connecting each telephone with all the other telephones, respectively, a circuit closer in circuit with each of the said conductors, a magnet for each circuit closer, a given electric generator, a pair of electric generators closed each upon itself for each magnet, one of the conductors normally including the magnet in each case, and means for changing for the purpose set forth, some of the magnets, each from one conductor closed upon itself to the other conductor closed upon itself, and for including in circuit with the said generator some of the said conductors in pairs and in series with each other. 3rd. An automatic telephone exchange system, consisting of the combination of a given number of telephones, located at respective sub-stations, independent electric conductors connecting each telephone with all the other telephones, respectively, a circuit closer in circuit with each of the said conductors, a magnet for each circuit closer, a given electric generator, a pair of electric conductors closed each upon itself for each magnet, one of the conductors normally including the

magnet in each case, and means for changing, for the purpose set forth, some of the magnets each from one conductor closed upon itself to the other conductor closed upon itself, and for including in circuit with the said generator some of the said conductors in pairs and in series circuit with each other, said means consisting of electro-magnetic switches, whose magnets are in circuit with given sub-station generators, and whose switches are normally included both in circuit with groups of said pairs of conductors and in open circuit with said first named generator. 4th. An automatic telephone exchange system, consisting of the combination of a given number of telephones, located at respective sub-stations, independent electric conductors, connecting each telephone with all the other telephones, respectively, a circuit closer in circuit with each of the said conductors, a magnet for each circuit closer, a given electric generator 5, a pair of electric conductors for each magnet closed respectively upon themselves, one of the conductors normally including one of said magnets, electro-magnetic switches whose magnets 14, 15, 16, etc., are in circuit with given sub-station generators 7, and whose switches are normally included both in circuit with groups of said pairs of conductors, and in open circuit with generator 5, signals at the sub-stations, in closed circuit with the generators 7, generators 62 in open circuit with generators 7, and including circuit closers for opening the circuits of the generators 7 for a predetermined period, and means both for closing the circuits of the generators 62, through the magnets 14, 15, 16, etc., and for opening the circuits of generators 7. 5th. An automatic telephone exchange system, consisting of the combination of a given number of telephones located at respective sub-stations, independent electric conductors connecting each telephone with all the other telephones respectively, a circuit closer in circuit with each of the said conductors, and means located at the central station, governed by devices located at the sub-stations for controlling said circuit closers in a predetermined manner, said devices consisting of resistances and generators normally in closed, circuits with said circuit closers, and batteries normally in an open circuit with said circuit closers and said telephones, and a switch 56' for cutting out the said generators and said resistances, and for cutting in the said batteries and telephones.

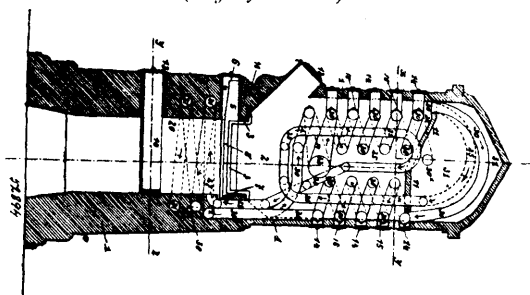
**No. 52,893. Manufacture of Ammonia and by-products.** (*Fabrication d'ammoniaque et de ses produits.*)

Carl Preper, Berlin, and Christian Fellner, Frankfort, both in Prussia, Germany, 13th July, 1896; 6 years. (Filed 30th December, 1895.)

*Claim.*—1st. The herein described process of obtaining in one continuous operation from nitrogenous substances, especially turf and peat, (1) the product of distillation, (2) ammonia, (3) gases of considerable caloric value, (4) coke, such process being specially characterized by the entire exclusion of air and the prevention of the generation of heat within the vessel containing the materials operated upon. 2nd. In a process for obtaining ammonia from nitrogenous substances, especially turf and peat, excluding the air entirely during the application of the steam to the heated materials and conducting such operation at a low temperature and so that no heat is generated within the vessel containing the substances operated upon, substantially as described. 3rd. In processes such as are claimed in the two preceding claims, regulating the temperature during the vaporizing operation by varying the quantity or temperature of the steam admitted, substantially as described.

**No. 52,894. Smoke Consuming Furnace.**

(*Foyer fumivore.*)



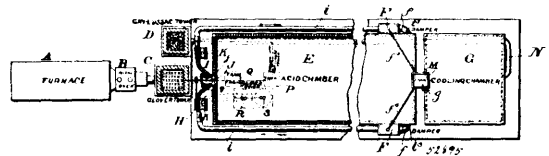
Franz Josef Reinisch, Lemberg, Galicia, Austria, 14th July, 1896; 6 years. (Filed 25th February, 1896.)

*Claim.*—1st. In a smoke consuming furnace for central heating and ventilating purposes, a heating chamber surrounding the grate, pipes or channels 25, issuing into said chamber and conveying the heated gases of the fire-place downward in order to be over-heated, substantially as described. 2nd. The described furnace, consisting of a basket shaped grate, an ash pit thereunder, the heating or superheating chamber, a heating coil 21, for the air, of coils 25 and 30, in the fire-place, said coils commencing at a partition cover 11 of the furnace, the shorter coil being surrounded partially by the fire and connected with the heating coil 21, a longer coil connecting with the shorter, entirely surrounded by the fire, leading to the heat-

ing escape pipe 30', while the other pipe 25, passes through the middle of the coils 30, and between the same, and issue in the super-heating room 22, at the points 26 and 27, divided into branches 23, 24, and create thereby an intense rotation and heating of the gases, substantially as described. 3rd. In combination with the basket grate 2, a reserve grate arranged under the fire grate consisting of a bottom surface 4, extending upwards against the front wall 6, and provided with side walls which inclose the lower part of the basket grate 3, the rear wall of the reserve grate being formed by the back of the chamber, substantially as described. 4th. In combination, the casing, the coils, the recesses in the walls of the casing, the doors 14, and the doors 15 in the coils, substantially as described.

**No. 52,895. Manufacture of Sulphuric Acid.**

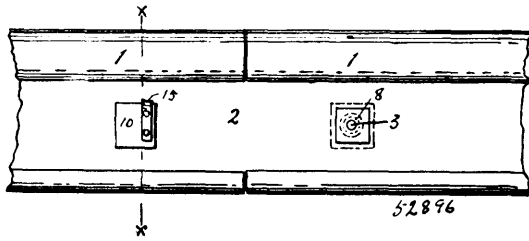
(*Fabrication d'acide sulfurique.*)



Nathaniel Palmer Pratt, Atlanta, Georgia, U.S.A., 14th July, 1896; 6 years. (Filed 5th March, 1896.)

*Claim.*—1st. In the manufacture of sulphuric acid, the method of accelerating and increasing the production in a given chamber-space, which consists in introducing the materials into the chamber, causing agitation of the same throughout the acid-producing portion of the apparatus, and withdrawing a portion of the matter from one part of the chamber and representing it at another, the operation being without interference with the draft, substantially as described. 2nd. In the art of making sulphuric acid, the improvement which consists in conducting a portion of gases previous to denitration against a current of dilute sulphuric acid, and subsequently projecting said gases into the chamber by mechanical means, substantially as described. 3rd. The method of decomposing any nitro-sulphuric acid present which has escaped previous decomposition and of precipitating the sulphuric acid freed in the decomposition by projecting the nitro-sulphuric acid against suitable surfaces under subjection to the action of water or weak sulphuric acid and returning whatever thereof remains undecomposed and whatever sulphuric acid remains unprecipitated, to the front of the chamber, substantially as described. 4th. The method of effecting a thorough commingling of the gasses passing to the acid chamber, which consists in withdrawing a portion of the gases, already generated, from the rear end of the chamber and passing them through a converter, thence leading the gases from the said converter to the front of the acid chamber, and then mechanically projecting them into the chamber, substantially as described. 5th. The method of changing a part of any sulphurous acid present which has escaped previous combination, into nitro-sulphuric acid, of splitting up this compound into sulphuric acid and nitrous anhydride, of precipitating and saving the resultant sulphuric acid, and conserving the resultant nitrous anhydride for re-introduction and admixture with the freshly entered or entering acid-producing materials; which consists in projecting sulphurous acid, nitrous anhydride and oxygen against obstructive surfaces in the presence of water or weak sulphuric acid, and returning the compounds not retained, as well as the materials not converted, toward the front of the apparatus, substantially as described. 6th. The method of trapping some of the sulphuric acid which has escaped previous precipitation, by projecting the same against suitable surfaces and returning the materials not precipitated to be intimately mixed with freshly entering acid-producing materials and projecting the mixture against precipitating surfaces, substantially as described. 7th. In a sulphuric acid plant, an acid-chamber having an entrance for supplying acid-making materials and an exit-opening, in combination with a blast device, mouthed toward the exit-opening only, for projecting the matter solely toward the exit-opening, and a return for reintroducing a portion thereof at or toward the entrance, substantially as described. 8th. In a sulphuric acid plant, an acid chamber having an entrance for supplying acid-making materials thereto, and an exit-opening, in combination with blast-mechanism and a conduit opening from a portion of the chamber toward its rear and into a portion toward the front thereof, substantially as described. 9th. In a sulphuric acid plant, an acid chamber having a conduit for supplying acid-making materials thereto, a converter connecting with the chamber, and a flue from the converter to the chamber, in combination with blast mechanism, substantially as described. 10th. The combination with an acid chamber, conduits leading therefrom to towers supplied with packing, and suitable spraying devices, conduits leading from said towers to the front of the chamber, and means for projecting the gases from the front part of the chamber, substantially as described. 11th. In a sulphuric acid chamber, the combination of mechanical means for circulating non-denitrated gases which have once passed through the chamber, and columns located in the path of said gases, substantially as described. 12th. The combination with the acid-producing portion of a sulphuric acid plant, of circulation inducing mechanism, and comminuting and converting columns, substantially as described.

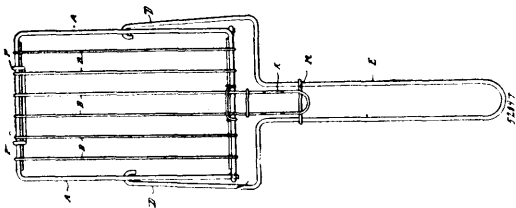
**No. 52,896. Nut-lock. (Arrête-écrou.)**



James T. Peters and George E. Ward, both of Armstrong, West Virginia, U.S.A., 14th July, 1896; 6 years. (Filed 28th April, 1896.)

*Claim.*—In a nut-lock, the combination with the bolt having right and left hand screw-threads at one end, of the right and left threaded nuts engaging therewith, the circular washer of smaller area interposed between said nuts, the box closed at its outer end, and its inner end formed with an annular recess and said box formed with an aperture in one side intersecting said recess, and the key consisting of the strip of spring steel or other metal bent over upon itself forming two arms, one of which is secured to the box and the other arm having its end bent inwardly and passed through the aperture in the box and engaging in the space between said nuts, substantially as described.

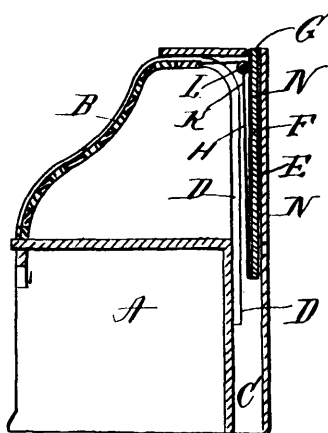
**No. 52,897. Meat Broiler. (Grille pour la viande.)**



George Washington Aldrick, Brooklyn, New York, U.S.A., 14th July, 1896; 6 years. (Filed 30th April, 1896.)

*Claim.*—The herein described meat broiler consisting of a wire frame A, provided with cross arms B, said frame having formed in the sides thereof, central loops C, adapted to receive the hooked ends of the supported sides D, of the handle E, whereby the frame A may be turned or revolved therein, and connected with said frame by means of hinges F, is a supplemental frame G, provided with a loop or extension H, said frame A being also provided with a loop or extension K, and a cap or ring L, adapted to slide on the loop or extensions K and H, and an additional sliding ring M, mounted on said handle to engage either of the extensions K or H, and retain the same in the fixed position, as and for the purpose specified.

**No. 52,898. Advertising Desk. (Pupitre d'annonce.)**

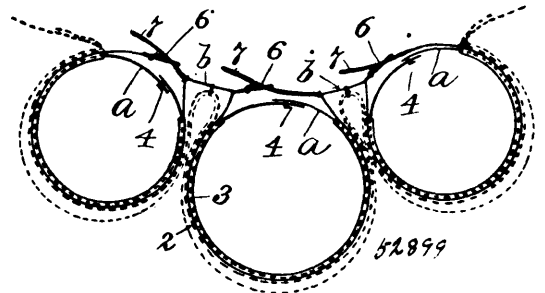


John Garretson Ten Eyck, New York, State of New York, U.S.A., 14th July, 1896; 6 years. (Filed 11th May, 1896.)

*Claim.*—1st. The combination in a roll top desk, provided with the usual flexible cover, having a vertical chamber in the back thereof, of a vertically movable plate within said chamber, adapted to project through the opening in the top of the desk, and means for connecting said plate with the flexible cover, whereby when the latter is raised the plate is projected upwardly, said top being formed of strips, in which are formed longitudinal grooves, adapted to receive detachable plates, substantially as and for the purpose set forth.

2nd. In the combination with a roll top desk of the usual construction, provided with a longitudinal chamber in the back thereof, a vertically movable plate within said chamber and adapted to be projected through a longitudinal slot in the top of the desk, cords connected with each corner of the plate and running over pulleys in the end of the desk, and a folding top of the usual construction provided with longitudinal chambers therein adapted to receive advertising plate, said cords connected to the ends of the top, whereby when the top is raised the back plate is elevated above the desk, said plate also carrying advertising plates removably secured therein, substantially as described.

**No. 52,899. Attachment for Skirts. (Attache de jupes.)**



Mary Pamellia Carpenter Hooper, New York, State of New York, U.S.A., 14th July, 1896; 6 years. (Filed 29th January, 1896.)

*Claim.*—1st. An attachment for skirts, consisting of a series of rings arranged periphery to periphery and connections between the rings on one side of the series, the rings being otherwise left free from each other, said device being adapted to be secured to the skirt so as to extend laterally part way around the skirt to cause the skirt to hang in folds, substantially as described. 2nd. An attachment for skirts, consisting of a series of spring rods arranged end to end, connections between the rods, and means for holding the rods in a bowed position, substantially as described. 3rd. An attachment for skirts, consisting of a series of spring rods arranged end to end, connections between the rods, and means for securing the ends of the rods together to form rings, substantially as described. 4th. An attachment for skirts, consisting of a band 2 provided with pockets 3 arranged longitudinally of the band and having connecting portions b between the pockets, spring rods in said pockets, and means for securing the ends of the rods together to form rings, substantially as described. 5th. An attachment for skirts, consisting of a band 2 provided with pockets 3 arranged longitudinally of the band and adapted to receive spring rods, and having connecting portions b between the pockets, and drawback straps secured to the connecting portions b, substantially as described. 6th. An attachment for skirts, consisting of a band 2, a series of spring rods a secured to the band and arranged end to end thereon and provided with means for securing their ends together to form rings, and connecting portions b of the band between the rods, substantially as described. 7th. An attachment for skirts, consisting of a band 2, a series of spring rods a secured to the band and arranged end to end thereon, connecting portions b of the band between the rods, and drawback straps secured to the connecting portions b, substantially as described. 8th. An attachment for skirts, consisting of a band 2, a series of spring rods a secured to the band and arranged end to end thereon and provided with means for securing their ends together to form rings, connecting portions b of the band between the rods, and drawback straps secured to the connecting portions b, substantially as described. 9th. The combination with a skirt, of one or more series of rings secured to the skirt, the rings of each series being arranged horizontally and periphery to periphery, and each series extending laterally part way around the skirt, and the material of the skirt extending between the rings, and the series being secured to the skirt at different distances from the bottom of the skirt, substantially as described. 10th. The combination with a skirt, of one or more series of rings secured to the skirt, the rings of each series being arranged horizontally and periphery to periphery, and each series extending laterally part way around the skirt, and the material of the skirt extending between the rings, and the rings diminishing in size each way from the centre of the back of the skirt, and the series of rings being secured to the skirt at different distances from the bottom of the skirt, and the size of the rings diminishing from the lower to the upper series, substantially as described. 11th. The combination with a skirt, of one or more series of spring rods secured to the skirt, the rods of each series being arranged end to end, and each series extending laterally part way around the skirt, and means for drawing the ends of the rods together, the series of rods being secured to the skirt so as to cause the skirt to hang in folds when the rods are bowed, substantially as described. 12th. The combination with a skirt, of one or more series of rods formed of india-rubber tubing secured to the skirt, the rods of each series being arranged end to end, and each series extending laterally part way around the skirt, and means for drawing the ends of the rods together to cause the skirt to hang in folds, substantially as described. 13th. The combination with a

skirt, of a band 2 secured to the skirt and extending laterally part way around the skirt, and provided with pockets 3 arranged longitudinally of the band and end to end thereon, and adapted to receive spring rods, and having connecting portions *b* between the pockets, spring rods in said pockets provided with means for adjustably securing their ends together to form rings, and drawback straps secured to the portions *b*, substantially as described. 14th. The combination with a skirt, of one or more series of spring rods secured to a lining of the skirt, the rods of each series being arranged end to end and each series extending laterally part way around the skirt to cause the skirt to hang in folds when the rods are bowed, and means for holding the rods in a bowed position, substantially as described. 15th. The combination with a skirt, of one or more series of spring rods secured to a lining of the skirt, the rods of each series being arranged end to end, and each series extending laterally part way around the skirt to cause the skirt to hang in folds when the rods are bowed, the outside material of the skirt being fastened to said lining in the recesses of the folds, and the breadths of the lining between such lines of connection with the skirt being narrower than the corresponding breadths of the outside material of the skirt, and means for holding the rods in a bowed position, substantially as described. 16th. The combination with a skirt, of one or more series of rings secured to a lining of the skirt, the rings of each series being arranged horizontally and periphery to periphery, and each series extending part way around the skirt to cause the skirt to hang in folds, the outside material of the skirt being fastened to said lining in the recesses of the folds, and the breadths of the lining between such lines of connection with the outside material of the skirt being narrower than the corresponding breadths of the outside material of the skirt, substantially as described. 17th. The combination with a skirt, of a series of rings secured to the skirt, the rings being arranged horizontally and periphery to periphery, and the series extending laterally part way around the skirt to cause the skirt to hang in folds, said rings being provided with spring-contracting bands 20, substantially as described.

**No. 52,900. Process of Manufacturing Alkaline Bichromates.** (*Procédé de fabrication de bichromate d'alcalin.*)

Marc Wahran Beylikagy, Borough of Tenafly, New Jersey, U.S.A., 14th July, 1896; 6 years. (Filed 13th May, 1896.)

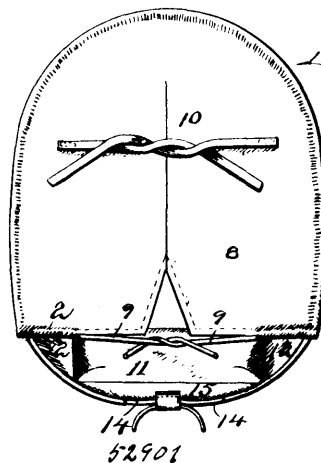
*Claim.*—1st. The hereinbefore described process of manufacturing the bichromates of potash and soda which consists in roasting together chrome iron ore, lime and an oxygenated compound of the radical metal of the alkali to be bichromated in such proportions and at such a temperature as to produce a double chromate from the other products of calcination by lixiviation and finally passing the lixivate through a filter saturated with an insoluble fatty acid so as to remove the lime and leave the bichromate of the alkali in solution. 2nd. The hereinbefore described process of manufacturing the bichromates of potash and soda which consists in producing a double chromate of lime and the alkali to be bichromated by calcining a mixture of chrome iron ore, lime and oxygenated compound of the radical metal of such alkali, separating such double chromate from the other products of calcination by lixiviation, and finally treating the lixivate with an insoluble fatty acid so as to remove the lime and leave the bichromate of the alkali in solution. 3rd. The hereinbefore described process of manufacturing the bichromates of potash and soda which consists in forming a solution of a double chromate of lime and the alkali to be bichromated and treating such solution with an insoluble fatty acid so as to remove the lime and leave the bichromate of the alkali in solution. 4th. In the manufacture of alkaline bichromates, the hereinbefore described method of removing the lime from a solution of a double chromate of lime and an alkali which consists in passing the solution through a filter containing an insoluble fatty acid, thereby causing the lime to combine with the acid so as to form a calcareous soap, drawing of the resultant solution of bichromate of the alkali from the filter, and finally removing the lime from the filter by treating it with dilute hydrochloric acid. 5th. In the manufacture of alkaline bichromates the hereinbefore described method of removing the lime from a solution of a double chromate of lime and an alkali which consists in treating such solution with an insoluble fatty acid so as to cause the lime to form with the acid a calcareous soap, and finally separating the resultant solution of bichromate of the alkali from the calcareous soap and any combined acid.

**No. 52,901. Bandage.** (*Bandage.*)

Richard Jacks, Quincy, California, U.S.A., 14th July, 1896; 6 years. (Filed 15th May, 1896.)

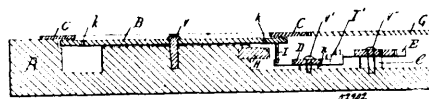
*Claim.*—1st. In a device of the class described, the combination of a frame having a temple-loop, adapted to extend over the front of the head, a chin-loop having its sides pivotally connected at intermediate points to the extremities of the temple-loop, and adapted to extend around the back of the head, a contractile or elastic strap connecting the front portion of the chin-loop with the sides of the temple-loop, to hold the loops normally in perpendicular planes, and a pad carried by the chin-loop to support the lower jaw of the wearer, substantially as specified. 2nd. In a device of the class described, the combination with a frame having temple and chin-loops, and means for securing them upon the head of the wearer, of

a pad to support the lower jaw of the wearer, an apron attached to the chin-loop for supporting the pad, and means for vertically ad-



justing the intermediate portion of the apron to vary the pressure of the pad, substantially as specified. 3rd. In a device of the class described, the combination with connected temple and chin-loops, and means for securing them to the head of a wearer, of a pad to support the lower jaw of the wearer, an apron having opposite flaps connected at their outer ends to the chin-loop and extending under the pad, keepers or loops on the outer surface of the pad, and cords or tapes attached to the free edges of the flaps, extending through said keepers or loops on the pad, and adapted to be tied beneath to support the pad in the desired position to exert the requisite pressure against the jaw, substantially as specified. 4th. In a device of the class described, the combination of pivotally connected temple and chin-loops constructed of pliable metal, whereby they may be bent to conform to the head of the wearer, contractile or elastic straps connecting the front portion of the chin-loop to an intermediate part of the temple-loop, means for securing said loops in operative positions upon the head, and a pad carried by the chin-loop for supporting the lower jaw, substantially as specified. 5th. The combination of a temple-loop, a chin-loop pivotally connected at its sides to the extremities of the temple-loop and extending in rear thereof, cords or tapes attached to the extremities of the chin-loop and adapted to be tied in rear of the head of the wearer, contractile or elastic straps connecting the front portion of the chin-loop to an intermediate part of the temple-loop, a pad supported by the chin-loop to bear against the lower jaw, a covering of fabric attached at its front edge to the temple-loop and at its lower edge to the rear portion of the chin-loop, and cords or tapes for taking up the slack of the covering, substantially as specified.

**No. 52,902. Adding Machine.** (*Machine à additionner.*)



Cyprien Charles Du Berger, Murray Bay, Quebec, Canada, 14th July, 1896; 6 years. (Filed 11th May, 1896.)

*Claim.*—1st. In an adding machine, the combination with a suitable frame A, of a graduated limb C fixed on the said frame, and a graduated circle B journaled on a pin *r*: the said circle B having a small hole *k*, perforated at each of its divisions and a pin I fixed to its under-surface just opposite the zero of the graduation, substantially as set forth. 2nd. In an adding machine, the combination with a suitable frame A, a graduated limb C fixed thereon and a graduated circle B journaled on a pin *r*: of wheels D and E provided respectively with 10 teeth numbered 0 to 9 and journaled on pins *r*<sup>1</sup> and *r*<sup>2</sup>, the tooth *o* of the one wheel D being provided with a block I<sup>1</sup> adapted to engage with one tooth of the wheel E at every revolution of the wheel D, substantially as shown and described.

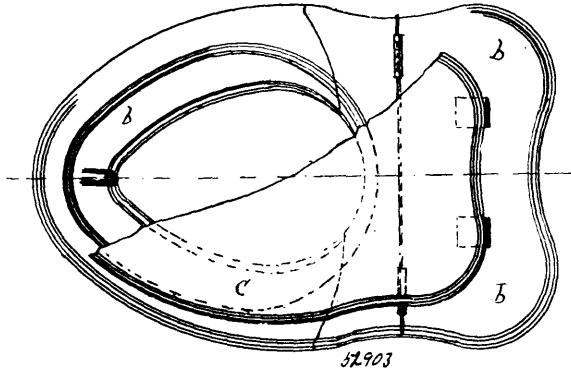
**No. 52,903. Water-Closet Seat.** (*Siège de latrines à eau.*)

John Carson Febiger, jr., New Orleans, Louisiana, U.S.A., 14th July, 1896; 6 years. (Filed 15th May, 1896.)

*Claim.*—1st. A water-closet seat consisting of a non-porous base plate having the usual opening, and being recessed on its upper face from the front to a point near the rear of said opening, a permanent non-conductive lining disposed on the recessed portion of

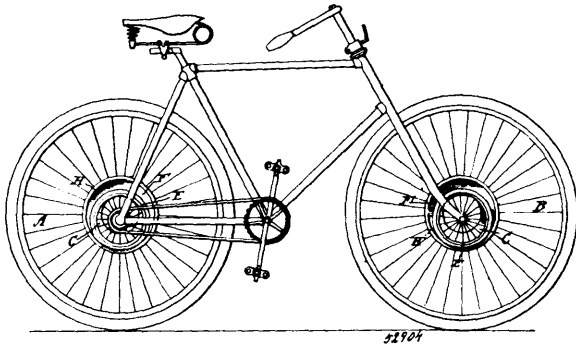


said base plate. 2nd. A water-closet seat composed of a base plate composed of an impermeable material and having the usual opening,



and a permanent rim composed of non-conductive material, and disposed at the front and sides of said opening, the back of said opening being non-absorbent.

**No. 52,904. Wheel for Cycles, Busses, Cabs, etc.**  
(*Roue pour cycles, cabriolets, etc.*)



James McConechy, Glasgow, North Britain, 14th July, 1896; 6 years. (Filed 11th May, 1896.)

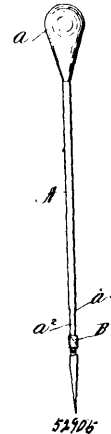
*Claim.*—1st. A wheel, comprising a pair of parallel intermediate rims, a pair of parallel inner rims provided with a hub and located within and arranged eccentrically to the intermediate rims, and the division plate located between the intermediate rims and also between the inner rims, substantially as described. 2nd. A wheel, comprising a pair of parallel intermediate rims, a pair of parallel inner rims provided with a hub and located within and arranged eccentrically to the intermediate rims and the division plate secured to the intermediate rims, and extending between the inner rims, substantially as described. 3rd. A wheel, comprising a pair of parallel intermediate grooved rims providing tracks, a pair of parallel inner grooved rims provided with a hub and located within and eccentrically to the intermediate rims, the tires secured to the inner grooved rims and fitting in the grooves of the intermediate rims and the division plate secured to the latter and extending between the intermediate rims and also between the inner rims, substantially as described.

**No. 52,905. Scarf Pins, Hat Pins, etc.**  
(*Epingle pour écharpes, chapeaux, etc.*)

Finn Fosheim, New York, State of New York, U.S.A., 14th July, 1896; 6 years. (Filed 15th May, 1896.)

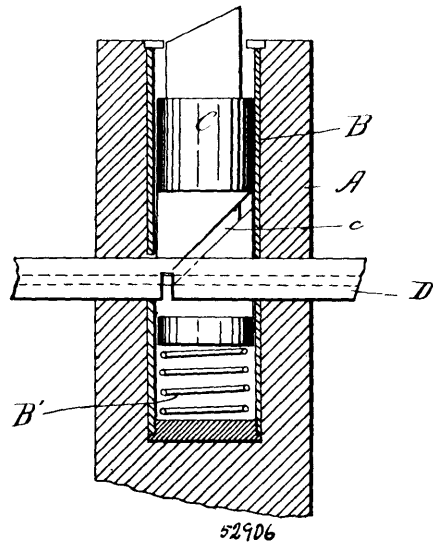
*Claim.*—1st. A scarf or other pin, provided with a pivoted pointed extension, and means for holding said extension at an angle to the shaft of the pin, substantially as shown and described. 2nd. A scarf or other pin, provided with a pointed extension, which is connected therewith, and which is adapted to be held at an angle thereto, and means for holding said extension at side angle, substantially as shown and described. 3rd. A scarf or other pin, provided at one end with a head, and at the other with a pointed extension which is adapted to be turned at an angle thereto, and means for holding said extension at said angle, substantially as shown and described. 4th. A scarf or other pin, provided at one end with a head, and at the other with a pointed extension which is adapted to be turned at an angle thereto, and means for holding said extension at an angle, consisting of a sleeve or band, which is adapted to slide on the shaft of the pin, substantially as shown and described. 5th. A scarf or other pin, comprising a shaft, to which is pivotally secured a pointed extension, said extension being adapted to be folded at an angle to the shaft, and to be held in said position, substantially as shown and described. 6th. A scarf or other pin, comprising a shaft, to which is pivotally secured a pointed extension, said extension being adapted

to be folded at an angle to the shaft, and to be held in said position, by means of a sleeve or band, which is mounted on a shaft, and



adapted to slide thereon, substantially as shown and described. 7th. A scarf or other pin, comprising a shaft, having a head at one end, and an open slot at the other, and a pointed extension pivotally connected therewith, and adapted to be turned at an angle thereto, and a sleeve or band which is mounted on said shaft, and adapted to slide thereon, and to hold said pointed extension at an angle thereto, substantially as shown and described. 8th. A scarf or other pin, comprising a shaft, having a head at one end and an open slot at the other, and a pointed extension pivotally connected therewith, and adapted to be turned at an angle thereto, and a sleeve or band which is mounted on said shaft, and adapted to slide thereon, and to hold said pivoted extension at an angle thereto, that portion of the shaft of the pin on which the sleeve or band is mounted being reduced in size, substantially as shown and described.

**No. 52,906. Lock. (Surrure.)**



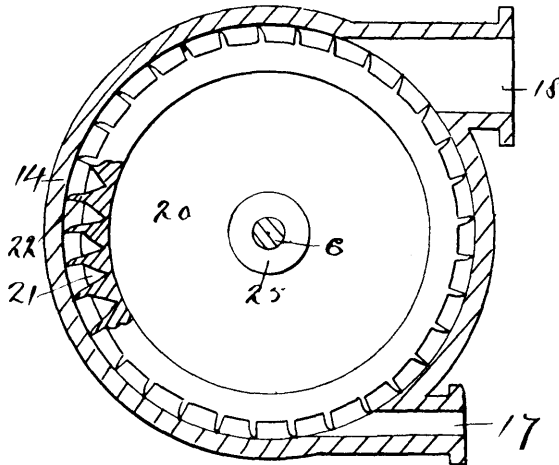
Napoléon Roy and Joseph Pierre Vallée, both of Montreal, Quebec, Canada, 14th July, 1896; 6 years. (Filed 24th June, 1896.)

*Claim.*—1st. In a door latch, the combination, with a slidable locking bolt provided with an inclined groove, of a transverse actuating rod extending through the door and provided with a tongue engaging with the said groove, and means for sliding the said rod substantially as set forth. 2nd. In a door latch, the combination, with a slidable locking bolt provided with an inclined groove, of a transverse bar extending through the door and provided with knobs at its ends, and a transverse actuating rod carried in a hole in the said rod and provided with a tongue engaging with the said groove, substantially as set forth. 3rd. In a door latch, the combination, with a slidable locking bolt provided with an inclined groove, of a transverse bar extending through the door and provided with a cross-notch over the locking bolt and knobs at its ends, and a transverse actuating rod journaled in a hole in the said bar and provided with a tongue working in the said cross-notch and adapted to be moved in or out of engagement with the said inclined groove, substantially as set forth. 4th. In a door latch, the combination, with a slidable locking bolt provided with an inclined groove, of a transverse bar

formed of two parts each provided with a semicircular groove, said semicircular grooves being arranged opposite each other, knobs secured to the ends of the said bar, and an actuating rod carried in the said semicircular grooves and provided with a tongue working in a cross-notch in the said bar and engaging with the said inclined groove, substantially as set forth. 5th. In a door latch, the combination, with a slidable bar extending through the door and provided with knobs at its ends, a part of one of the said knobs comprising an alarm bell, a transverse actuating rod carried in a hole in the said bar and provided with a tongue engaging with the said inclined groove, and a hammer connected with the door and operating to ring the bell when the said transverse bar is slid in one direction, substantially as set forth.

**No. 52,907. Cream Separator,**

(*Séparateur pour la crème.*)



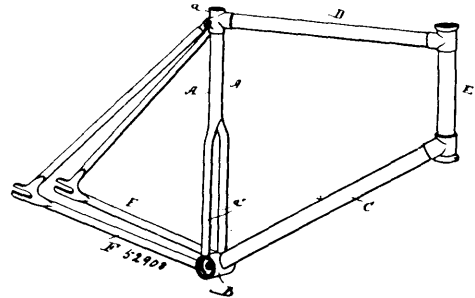
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Andrew Wilson and Thomas Hocking, both of Montreal, Quebec, Canada, 14th July, 1896; 6 years. (Filed 19th June, 1896.)

*Claim.*—1st. A steam operated separating machine, comprising a separator proper, and means for operating same, consisting of a chamber, a shaft operatively connected to said separator and passing through said chamber, a turbine wheel mounted upon said shaft within said chamber, and a steam inlet, and an exhaust to and from said chamber, for the purpose set forth. 2nd. A steam operated separating machine, comprising a separator proper, and means for operating same, consisting of a chamber, a shaft operatively connected to said separator and passing through said chamber, a turbine wheel mounted upon said shaft within said chamber, a steam inlet, and an exhaust to and from said chamber, and a band pulley mounted rigidly upon said shaft, for the purpose set forth. 3rd. A steam operated separating machine, comprising a separator proper, and means for operating same, consisting of a chamber, a shaft operatively connected to said separator and passing through said chamber, a turbine wheel mounted upon said shaft within said chamber, said turbine consisting of a disc having angular recesses therein and radial projections between said recesses, a steam inlet and an exhaust to and from said chamber, for the purpose set forth. 4th. A steam operated separating machine, comprising a separator proper, and means for operating same, consisting of a chamber, a shaft operatively connected to said separator and passing through said chamber, a turbine wheel mounted upon said shaft within said chamber, said turbine consisting of a disc having angular recesses therein and radial projections between said recesses, the ends of said projections having their ends convex on one side and flat on the other, a steam inlet and an exhaust to and from said chamber, for the purpose set forth. 5th. A steam operated separating machine, comprising a separator proper, and means for operating same, consisting of a chamber, a shaft operatively connected to said separator and passing through said chamber, a turbine wheel mounted upon said shaft within said chamber, a recessed hub upon the underside of said turbine wheel, and a metallic bushing located in the under side of said chamber, the upper end of said bushing projecting upward and adapted to be enclosed by said recessed hub, and a steam inlet and an exhaust to and from said chamber, for the

purpose set forth. 7th. A steam operated separating machine, comprising a separator proper, and means for operating same, consisting of a chamber, a shaft operatively connected to said separator and passing through said chamber, a turbine wheel mounted upon said shaft within said chamber, a recessed hub upon the under side of said turbine wheel, and a metallic bushing located in the under side of said chamber, the upper end of such bushing projecting upward and adapted to be enclosed by said recessed hub, and said turbine consisting of a disc having angular recesses therein and radial projections between said recesses, the ends of said projections having their ends convex on one side and flat on the other, a steam inlet and an exhaust to and from said chamber, and a band pulley mounted rigidly upon said shaft, for the purpose set forth. 8th. A turbine wheel consisting of a disc having its periphery extended in thickness and provided with angular recesses, a series of radial projections between said recesses, and the ends of such projections having one side flat and the other side convex, for the purpose set forth.

**No. 52,908. Bicycle Frame.** (*Cadre de bicyclette.*)

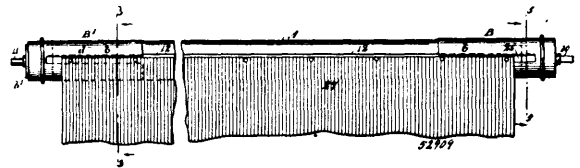


The America Cycle Manufacturing Company, assignee of Edward Mark Graham, all of Chicago, Illinois, U.S.A., 14th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—1st. A bicycle frame comprising the combination with a tubular axle-bearing and with suitable adjunctive connections, of a seat-post A having its forked arms *a'* rigidly secured to the outer ends of the tubular axle-bearing, substantially as described. 2nd. A bicycle frame comprising the combination with the steering socket, with the V-shaped sub-frames F, and with the forward lower bar C, of the seat-post or standard A having its lower ends provided with the forked arms *a'*, and the tubular axle-bearing B connected to the lower end of the bar C, said axle-bearing extending between and having its outer ends rigidly connected to the forward lower ends of the sub-frames F and having its outer ends also rigidly connected to the lower ends of the forked arms *a'*, whereby said tubular axle-bearing serves not only to receive the axle, but also to rigidly connect the forked arms *a'* and the front ends of the sub-frames, substantially as described.

**No. 52,909. Extensible Tip for Shade Rollers.**

(*Bout à extension pour bâtons de rideaux.*)

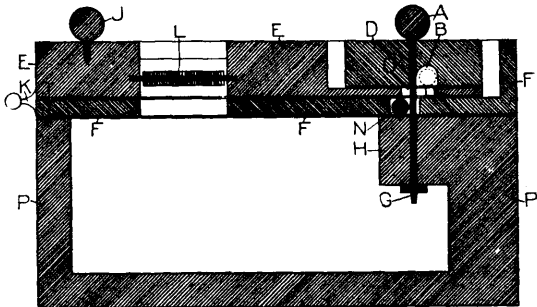


William Benson Shaw and Jacob Myers, Hatboro, Pennsylvania, assignee of William Benson Shaw, Brooklyn, New York, U.S.A., 14th July, 1896; 6 years. (Filed 24th June, 1896.)

*Claim.*—1st. The combination with a shade roller, of tips having sliding movement on the ends of the roller, and a spring attached to a tip, having torsional action and adapted to slide with the tip without interfering with such action, substantially as described. 2nd. The combination with a shade roller, of tips having sliding movement on the ends of the roller and carrying the trunnions thereof, and stops serving to prevent rotary movement of the tips on the roller, yet permitting of the afore-said sliding movement, as and for the purpose set forth. 3rd. The combination with a shade roller having a longitudinal slot produced therein at its ends, of tips having sliding movement on the ends of the roller, carrying the trunnions thereof, each tip being provided with a guide entering the slot in the roller, whereby the tips are prevented from turning, as and for the purpose specified. 4th. The combination with a shade roller provided with a longitudinal slot therein at its ends, of tips having sliding movement on the ends of the roller carrying the trunnions thereof, the said tip being provided with longitudinal slots to admit of the attachment of the shade cloth, and flanges projected downward from the wall of the said slot to enter the slot in the roller, as and for the purpose specified. 5th. In a spring shade roller, an extensible tip having an attachment to a spring,

whereby the spring and the tip may be moved together, as and for the purpose set forth. 6th. In a spring shade roller, a tip having sliding movement on the roller and provided with a stop preventing rotary movement, the said tip being likewise attached to the spring of the roller, whereby the spring may be moved with the tip without changing the tension of the said spring, as and for the purpose set forth.

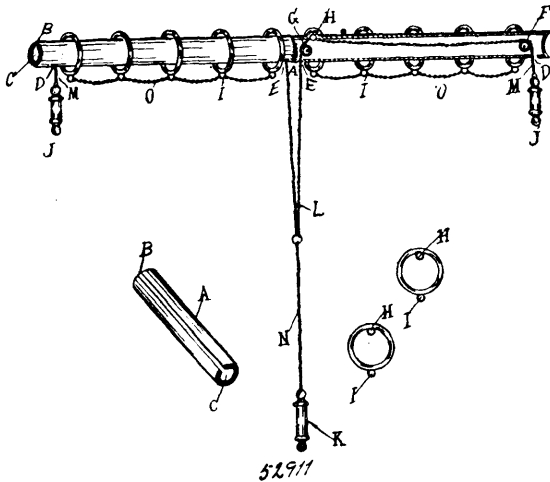
**No. 52,910. Lock. (Serrure.)**



Matthew Willis and George Worthy, both of Toronto, Ontario, Canada, 14th July, 1896; 6 years. (Filed 20th June, 1896.)

*Claim.*—The combination of the parts and cavities marked by the letters D, E, F, H, G, K, C, N and B, as and for the purpose hereinbefore set forth.

**No. 52,911. Barres à Rideaux. (Curtain pole.)**



Jean-Baptiste Bédard, St-Henri, Québec, Canada, 14 juillet 1896; 6 ans. (Déposé 16 mars 1896.)

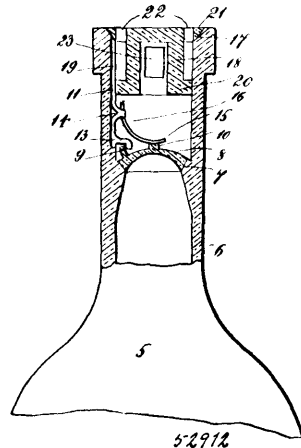
*Résumé.*—1er. La combinaison des chaînes O, O, la rainure B, les poulies F, F, G, G, les trous D, D, E, E. 2ème. La combinaison des chaînes M, M, L, N, avec les crochets H, H, les poids J, J, K, tel que, ci-dessus décrit et pour les fins indiquées.

**No. 52,912. Bottle. (Bouteille.)**

Carl Paul Lundquiste, Brooklyn, New York, U.S.A., 16th July, 1896; 6 years. (Filed 19th June, 1896.)

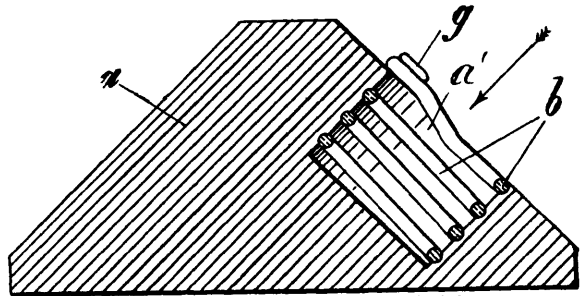
*Claim.*—1st. The combination with a bottle, jug, jar or similar vessel, provided with a neck, and a valve seat formed therein, and with a vertical slot in one of the inner walls thereof, of a valve adapted to be seated on said valve seat, a rod or bar placed in said slot, and provided at its lower end with a hook which is adapted to engage with a corresponding hook formed on the valve, a spring connected with said rod or bar, and adapted to bear on said valve, and by which said rod or bar is held in place, said plug being provided with ports or passages therethrough, substantially as shown and described. 2nd. The combination with a bottle, jug, jar or similar vessel, provided with a neck, and a valve seat formed therein, and with a vertical slot in one of the inner walls thereof, of a valve adapted to be seated on said valve seat, a rod or bar placed in said slot, and provided at its lower end with a hook which is adapted to engage with a corresponding hook formed on the valve, a spring connected with said rod or bar, and adapted to bear on said valve, and a tubular plug which is secured in the upper end of the neck, said plug being provided with annular outwardly-directed flanges or shoulders at its upper end and its lower ends, whereby an annular chamber is formed, and said plug being also closed at its upper end, and the flange or shoulder at said end being provided with

side ports or passages, and said plug below said annular shoulder or flange being provided with side ports or passages at right angles



thereto, substantially as shown and described. 3rd. The combination with the neck of a bottle or similar vessel, having an annular valve seat formed therein and a vertical slot in one side thereof, of a valve adapted to close the opening through said valve seat, a rod placed in said slot, and provided at its lower end with a hook adapted to engage with a corresponding hook formed on said valve, and said rod being provided with a spring which is adapted to bear on the valve, and means for closing the upper end of the neck, and for holding the rod or bar in place, consisting of a tubular plug closed at its upper and open at its lower end, and between which and the neck is formed an annular chamber, said plug being also provided with side ports or passages which communicate with said chamber, and at its upper end with an annular shoulder or flange in which are formed other ports or passages at right angles to those formed in the side of the plug, substantially as shown and described.

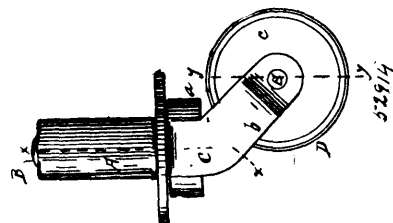
**No. 52,913. Handle Fastening. (Attache de manche.)**



Reiner Sanders, Crefeld Kingdom, Prussia, 16th July, 1896; 6 years. (Filed 19th May, 1896.)

*Claim.*—1st. A handle fastener having a separate spiral or screw thread interposed between the handle and tool recess. 2nd. The combination of a tool having a recess, a tapered handle, and a separate spiral attached to the handle and adapted to be screwed into the recess.

**No. 52,914. Furniture Caster. (Roulette de meubles.)**



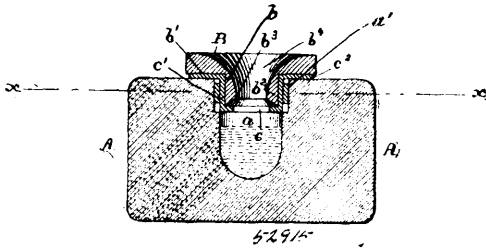
Wallace C. Bransden and Charles R. Bransden, both of Brockton, Massachusetts, U.S.A., 16th July, 1896; 6 years. (Filed 19th May, 1896.)

*Claim.*—1st. In a caster the combination with a supporting socket and swiveling spindle, of a truck supporting stand provided with a pendent inclined arm having at its lower end a hub to receive the truck supporting stud and a circular collar or flange concentric with

said stud, with a space between said collar and arm, a truck recessed upon one side to receive said collar and upon the other side to receive the head of its supporting stud, and a stud set in said arm and forming a journal for said truck without projecting beyond its outer face. 2nd. The combination in a caster, of a supporting socket, a swivelling spindle mounted therein, the truck carrying stand or hanger C, comprising a single pendent inclined arm *b* with a hub at its lower end, the collar *c* surrounding said hub and removed from the inner face of said arm *b*, a stud set in said hub and provided with a head upon its outer end, the truck D mounted on said stud with its rim projecting over the peripheral edge of said collar, and a doctor plate formed in one piece with said truck supporting arm constructed, arranged and operating to clean the periphery of said truck as it is revolved.

**No. 52,915. Shield for Inkstands.**

(*Protecteur d'encriers.*)

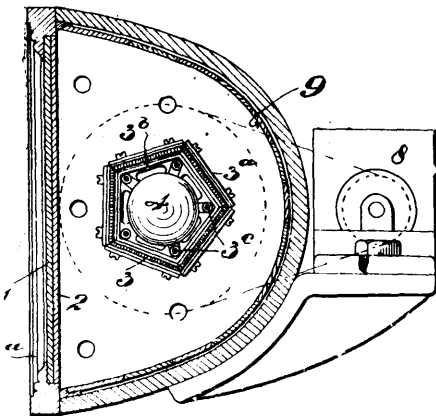


Robert Gardiner Hopkins, Somerville, Massachusetts, U.S.A., 16th July, 1896; 6 years. (Filed 19th May, 1896.)

*Claim.*—1st. A shield for an inkstand mouth having a slit diaphragm, a sleeve extending from the edge thereof and outwardly extending resilient wings or ribs. 2nd. A shield for the mouth of an ink well having a slit diaphragm, a sleeve extending upwardly from the diaphragm, outwardly extending resilient wings or ribs and an outwardly extending flange *c*<sup>2</sup>. 3rd. In a shield for the mouth of an ink well, the mouth piece having a central projection and a hole passing through it and with a slit diaphragm at the end of said projection having outwardly extending wings or ribs. 4th. In a shield of the character specified, the combination of the mouth piece having an inward projection and a hole extending through both, the slit diaphragm held to the under side of the projection by a sleeve which surrounds the said projection, a flange extending from said sleeve, and swings or ribs extending from the side of said sleeve outwardly but disconnected from the said flange, as and for the purposes described. 5th. A stopper or mouth piece made adjustable to openings of varying size by means of laterally extending wings or ribs, substantially as described. 6th. A stopper or mouth piece made adjustable to openings of varying size by means of laterally extending wings or ribs, and having a packing flange or collar of flexible or resilient material above said ribs.

**No. 52,916. Apparatus for Advertising, etc.**

(*Appareil de publicité.*)



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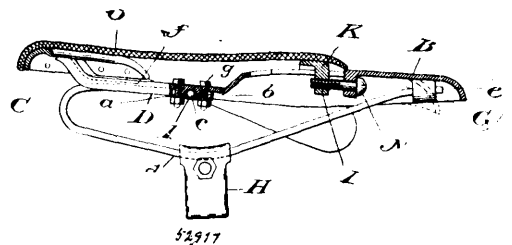
Guy Carey Fricker, London, England, 16th July, 1896; 6 years. (Filed 21st May, 1896.)

*Claim.*—1st. Apparatus for advertising and like purposes, comprising a facia on which is the design or representation to be displayed, one or more movable bodies carrying or each carrying a series of differently coloured strips or stripes of material, and means for illuminating said coloured strips or stripes so that the colours thereof will be transmitted to and caused to illuminate the design or representation on said facia. 2nd. Apparatus for advertising and like purposes, comprising a facia on which is the design or

representation to be displayed, a hollow rotary body carrying a series of differently coloured strips or stripes of transparent or translucent material and mounted behind said facia, means for illuminating the interior of said rotary body, and means for rotating said rotary body, substantially as described. 3rd. Apparatus for advertising and like purposes, comprising a facia on which is the design or representation to be displayed, a reflector arranged behind said facia, one or more hollow bodies mounted or each mounted to rotate between said facia and reflector and carrying or each carrying a series of differently coloured strips or stripes of transparent or translucent material, means for illuminating the interior or interiors of said body or bodies, and means for moving said body or bodies, substantially as described. 4th. Apparatus for advertising or like purposes, comprising a facia on which is the design or representation to be displayed, a backing consisting of one or more sheets of glass arranged behind said facia and having a ribbed, diamond-moulded or other roughened surface, a movable body mounted behind said backing and carrying a series of strips or stripes of different colours, means for illuminating said coloured strips or stripes so that the colours thereof will be transmitted to and illuminate the design or representation thereon, and means for operating said rotary body, substantially as described. 5th. Apparatus for advertising and like purposes, comprising a facia on which is the design or representation to be displayed, a reflector of parabolic form in cross section, arranged behind said facia, a hollow body mounted to rotate between said facia and reflector and carrying a series of strips or stripes of differently coloured material, means for illuminating the interior of said hollow body, and means for rotating said body about its axis, substantially as described. 6th. Apparatus for advertising and like purposes, comprising a facia on which is the design or representation to be displayed, a backing composed of one or more sheets of glass having a ribbed, diamond-moulded or other roughened surface and arranged behind said facia, one or more hollow bodies arranged to rotate behind said backing and carrying differently coloured strips or stripes of transparent or translucent material, means for illuminating said strips or stripes, a reflector of parabolic form arranged behind said rotary body or behind each of them, and means for rotating said body or bodies, substantially as described. 7th. Apparatus for advertising and like purposes, comprising a box or casing having at its front side a facia on which is the design or representation to be displayed, a sheet of glass having a ribbed or roughened surface located behind said facia, a reflector of parabolic form in section located at the back of said box or casing, a hollow polyhedron comprising differently coloured strips of glass, or a hollow transparent cylinder on which are painted strips of different colours, said polyhedron or cylinder being mounted behind said facia with its axis coinciding with that of the parabolic reflector, or approximately so, incandescent electric lamps mounted in said polyhedron or cylinder, and means for rotating said polyhedron or cylinder, substantially as described. 8th. Apparatus for advertising and like purposes, comprising a box or casing having at its front side a facia on which is the design or representation to be displayed, a sheet of glass having a ribbed or roughened surface located behind said facia, a reflector of parabolic form in section located at the back of said box or casing, a series of hollow vertical polyhedra, each comprising differently coloured strips of glass, or hollow transparent cylinders on which are painted strips of different colours, a reflector having reflecting surfaces of parabolic form in section, one arranged behind each polyhedron or cylinder, and means for rotating said polyhedron or cylinders, substantially as described.

**No. 52,917. Saddle for Bicycles, etc.**

(*Selle pour bicycles, etc.*)



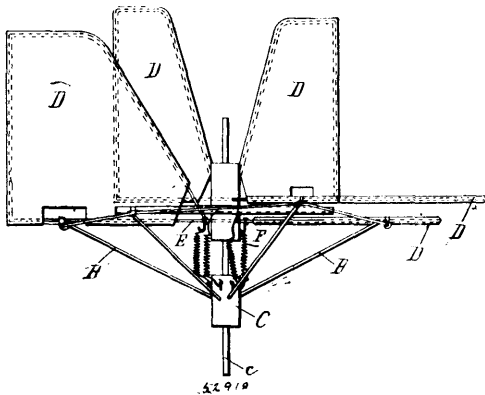
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Frederick James Haworth Hazard, Toronto, Ontario, Canada, 16th July, 1896; 6 years. (Filed 19th June, 1896.)

*Claim.*—1st. In a saddle, a frame formed with a projecting horn or pommel, in combination with a leather hammock seat connected at its rear end to the rear of the frame and supported from downward motion at its forward end at a point behind the forward end of the pommel, but in front of the position assumed by the ischial tuberosities of the rider's pelvis, substantially as and for the purpose specified. 2nd. In a saddle, a frame formed with a projecting horn or pommel, in combination with a leather hammock seat connected at its rear end to the rear of the frame, adjustably connected to the pommel and supported from downward motion at a point behind the forward end of the pommel, but in front of the position assumed by the ischial tuberosities of the rider's pelvis, substantially as and for the

purpose specified. 3rd. In a saddle, a frame comprising a rearward flange, a pommel and connecting arms below the level of the upper surface of the flange and pommel, in combination with a hammock seat connected to the said flange and to the pommel, and supported from downward motion at a point behind the forward end of the pommel, but in front of the position assumed by the ischial tuberosities of the rider's pelvis, substantially as and for the purpose specified. 4th. In a saddle, the frame A, comprising the pommel B, rearward flange C, arms D, and head K, connected to the pommel, in combination with the leather seat O, connected to the flange C, and head K, substantially as and for the purpose specified. 5th. In a saddle, the frame A, comprising the pommel B, rearward flange C, arms D, head K, and lug L, shouldered to slide in the slot J, of the pommel, and the adjusting screw N, passing through a lug on the pommel and screwed into the lug L, in combination with the leather seat O, connected to the flange C, and head K, substantially as and for the purpose specified. 6th. In a saddle, a frame in combination with a spring centrally connected to the said frame, then curved rearwardly in two branches, then forward to the pommel of the saddle where the two ends pass through lugs formed on the pommel, substantially as and for the purpose specified. 7th. In a saddle, a frame having a plate E, centrally located and provided with two ribs a and b, in combination with the spring F, shaped as shown, the plate I, bolts g, and lugs C on the pommel, substantially as and for the purpose specified.

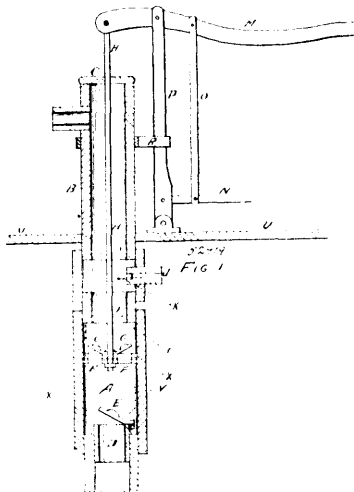
**No. 52,918. Moulin à Vent. (Wind-Mill.)**



Joseph Lemire, Drummondville, Quebec, Canada, 16 juillet 1896; 6 ans. (Déposé 30 mai 1896.)

*Résumé.*—Dans un moulin à vent la combinaison d'une charpente horizontale A de forme hexagonale maintenue fixe sur un arbre vertical c au moyen de tiges B, avec des aubes D fixées sur des barres horizontales disposées dans des coussinets suivant les diagonales de la charpente de manière que deux aubes opposées soient à 90° l'une par rapport à l'autre; le tout tel que décrit dans la spécification et montré aux dessins.

**No. 52,919. Pump. (Pompe.)**

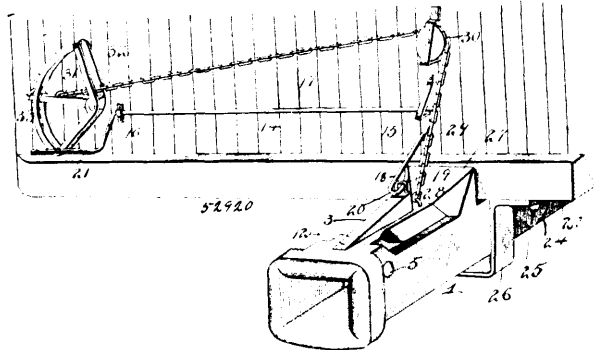


William C. Buck, Peterborough, Ontario, Canada, 16th July, 1896; 6 years. (Filed 20th June, 1896.)

*Claim.*—1st. The combination of a hand and foot power for pumps having standard P, guide R, handle M, foot lever N, and connecting rod O, substantially as and for the purpose hereinbefore set forth.

2nd. The combination in a cap for a pump head to make same water-tight when required to be used as a force pump having jaws S, S, and excentric lever handle T, substantially as and for the purpose hereinbefore set forth. 3rd. The combination in a gate valve to be used on pumps having a weighted lever L, and pin K, to be opened by pin I, on pump rod H, substantially as and for the purpose hereinbefore set forth. 4th. The combination in a pump sucker F, F, having double valves X, X, substantially as and for the purpose hereinbefore set forth. 5th. The combination in a pump cylinder having a separate casting D raised above the bottom of cylinder and having valve V, substantially as and for the purpose hereinbefore set forth.

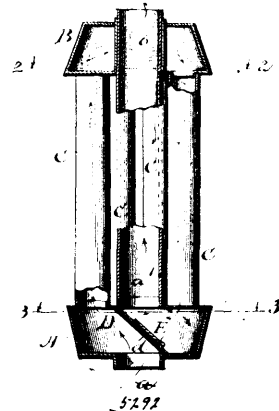
**No. 52,920. Car Coupler. (Attelage de chars.)**



Charles D. Horgan, Victor, Colorado, U.S.A., 16th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—1st. In a car coupling, the combination of a draw-head having a link opening and provided with a longitudinal slot, a swinging catch arranged in the slot, provided at opposite sides with a recess and having at its front dove-tail flanges, a removable shoe having a dove-tail groove interlocked with the dove-tail flanges of the catch and provided at its top with side flanges fitting in the recesses of the catch, and a transverse pivot pin passing through the side flanges and the catch, pivoting the latter in the draw-head and securing the shoe to the same, substantially as described. 2nd. In a car coupling, the combination with a car, of a draw-head provided at its shank with a hinged-joint and capable of a limited upward and downward movement, a pulley mounted on the car and located above the draw-head, a chain secured to the draw-head, passing over the pulley and extending to one side of the car, an operating lever connected with the chain, a ratchet, and a pawl carried by the lever and engaging the ratchet, substantially as and for the purpose described. 3rd. In a car coupling, the combination of a draw-head, a swinging catch arranged therein, provided with a transverse perforation and having a hole extending from its upper edge to its front edge and intersecting the transverse perforation and adapted to receive a lubricant, a removable shoe arranged at the front of the catch, interlocked therewith and provided with side flanges embracing the same, and a transverse pivot passing through the side flanges and the perforation of the catch, locking the shoe to the latter and pivoting the catch to the draw-head, substantially as and for the purpose described.

**No. 52,921. Radiator. (Radiateur.)**



Anton Ohnemus, Quincy, Illinois, U.S.A., 16th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—1st. A radiator composed of an upper and a lower drum, pipes connecting the same, and a central pipe affording communication from the lower drum through the upper one, substantially as specified. 2nd. A radiator composed of an upper and a lower drum, a diaphragm dividing the lower drum into two compartments, pipes

connecting the two drums, and a central pipe affording communication between the one compartment of the lower drum and the chimney, as set forth. 3rd. A radiator consisting of an upper and a lower drum, pipes connecting the same, and an inclined partition within the lower drum, as set forth. 4th. A radiator consisting of an upper and a lower drum, the former having a central sleeve extending therethrough and the lower provided with an upper and a lower neck and an inclined partition and pipes connecting the upper and lower drum part upon one side of said partition and part upon the other side, substantially as shown and described.

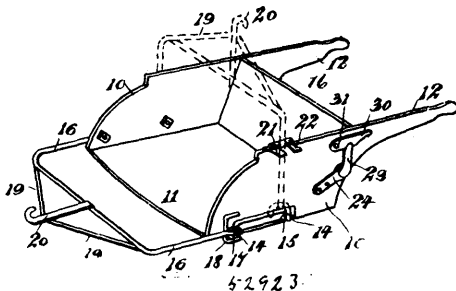
**No. 52,922. Metallic Fence Post.**  
(*Poteaux de clôture métalliques.*)



Albert Davison, Belvidere, Illinois, U.S.A., 16th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—A post consisting of a series of polygonal shaped rods in cross section, each separately twisted and twisted together in the same direction.

**No. 52,923. Scraper.** (*Grattoir.*)

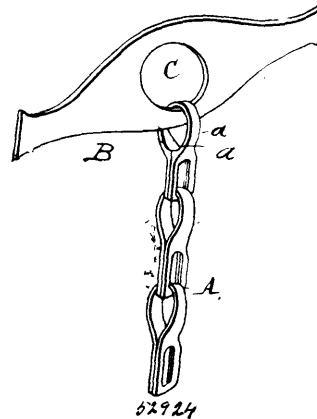


Clement Elond Burbank, New York, State of New York, U.S.A., 16th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—1st. The combination, with the scraper, of the side brackets thereon, the hauling and hoisting bail arranged to slide on the brackets, from hauling to hoisting position, and latch devices by which to lock the bail in hoisting position, substantially as described. 2nd. The combination, with the scraper, of the side brackets thereon, the bail arranged to slide on the brackets and to swing over the scraper top, and catches on the scraper to engage the bail, and by which the latter may be locked in hoisting position, substantially as described. 3rd. The combination, with the scraper and the swinging bail, of the side catches on the scraper to engage the bail, the catches being inclined at their outer edges, substantially as described. 4th. The combination, with the scraper and the side brackets having end bends, of the bail held to slide on the brackets and provided with hooks to engage the bent ends of the brackets, substantially as described. 5th. The combination, with the scraper, of the spring-pressed latch on the back of the scraper, and a tripping device to release and lock the latch, substantially as described. 6th. The combination with the scraper, of the spring-pressed shaft on the back of the back of the scraper, the latch carried by the shaft, and means, as the crank on the shaft and the notched latch, to lock the shaft and the first latch, substantially as described. 7th. A scraper substantially as described provided with a rope securing latch and with a tripping device by which to lock and release the said latch, substantially as set forth. 8th. A scraper provided with

elongated side brackets combined with the bail held to and movable along said brackets, and locking devices carried by the bail and by which the said bail may be held at the end of the brackets, substantially as shown and described. 9th. The combination with the scraper, of the side brackets, the bail connected with said brackets and arranged for adjustment to position for hauling or hoisting, a latch device by which the bail may be held to the scraper in hoisting position, and locking devices by which to lock the bail from movement along the brackets when such bail is in hoisting position, all substantially as and for the purpose set forth.

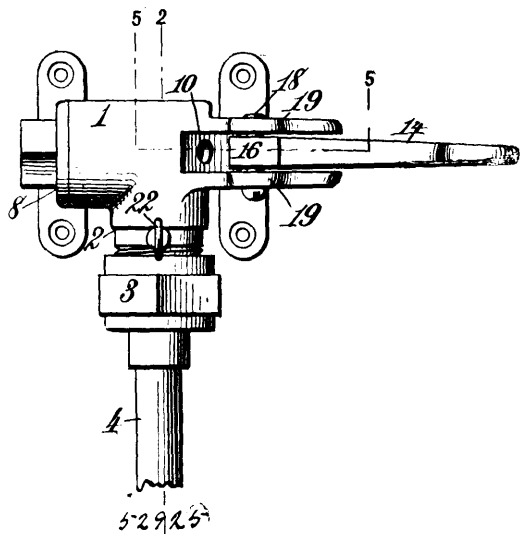
**No. 52,924. Toggle or Cross Bars for Chains.**  
(*Cabillot ou barre de traverse pour chaines.*)



Reuben Cadwell Eldridge and Herbert Marion Eldridge, both of Niagara Falls, Ontario, Canada, 16th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—A toggle or cross bar for a chain, having an opening for the attachment of the chain, which opening is of sufficient size to permit the chain to be doubled through it, substantially as set forth.

**No. 52,925. Train Conductor's Signalling Valve.**  
(*Souape de signalement pour conducteurs de chemin de fer.*)

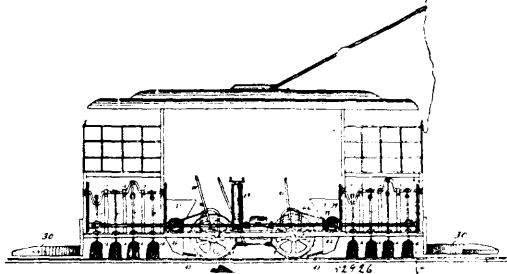


John Robert Ide, Salisbury, North Carolina, U.S.A., 16th July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—1st. The combination with a valve, and a screen through which air must pass in transit to the valve-disk, of a device automatically actuated by the air in passing to the valve striking the screen to prevent it from clogging with dirt, dust or sand, substantially as described. 2nd. The combination with an air-conducting pipe or tube, and a screen arranged in the path of the air for screening the same from dirt, dust or sand, of a knocker automatically actuated by the air traversing the pipe or tube and striking the screen to prevent it from clogging, substantially as described. 3rd. The combination with a valve-casing having a valve-seat, a spring-seated valve-disk, a device for unseating the valve from the exterior of the valve-casing, and a screen arranged in proximity to the valve-disk and through which the fluid must pass in transit to the valve-disk and valve-seat, of a knocker-device operated by the inflowing air to strike the screen and prevent it from

clogging with dirt, dust or sand, substantially as described. 4th. The combination with a valve-casing having a valve-seat, a spring-seated valve-disk, and a device for unseating the valve-disk from the exterior of the valve-casing, of a screen located in a part of the valve-casing at one side of the valve-disk, a removable plug fitted into the valve casing for gaining access to the interior of the latter at one side of the screen, and a knocker device operated by the air in transit to the valve-disk and valve for striking the screen and preventing it from clogging with dirt, dust or sand, substantially as described.

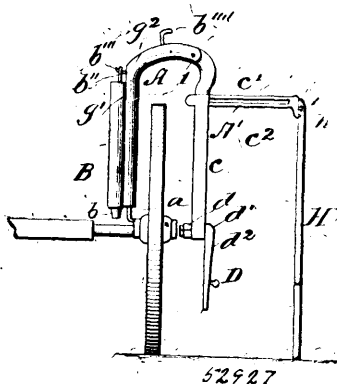
**No. 52,926. Track Cleaner.** (*Nettoyeur de voie.*)



Joseph Baringer, Akron, Ohio, U.S.A., 16th July, 1896; 6 years. (Filed 24th June, 1896.)

*Claim.*—1st. The combination in a track cleaner of a frame mounted on a pair of axles on flanged wheels, a series of rocking arms carrying reciprocating brooms operated by cranks on a shaft driven by a sprocket-chain driven by a shaft mounted in said frame and revolved by a pinion meshing in a bevel on one of said axles, and a pair of sand-boxes provided with gates arranged to be simultaneously operated by a hand lever, substantially as shown and described. 2nd. A track cleaner consisting of a frame mounted on a pair of axles on flanged wheels, said axles bearing bevel-gears arranged to communicate motion through a pinion to a shaft mounted in said frame, said shaft bearing a second pinion, a pair of transverse shafts bearing bevels meshing in said pinion, the said shafts bearing each a feed wheel having recesses in their peripheries, sand-boxes mounted on said frame and immediately over the said feed-wheels, said sand-boxes provided with gates arranged to be simultaneously operated by a hand lever, a second shaft mounted on uprights in said frame both shafts having sprocket-wheels, said wheels being connected by a chain, the sprocket on the first shaft being loose thereon and arranged to be operated by a clutch on said shaft and controlled by a hand lever, said second shaft bearing cranks, said cranks being connected by rods to rocking arms mounted in said frame, said arms bearing brooms at their lower ends, all arranged and designed to co-act, substantially as shown and described.

**No. 52,927. Device for Oiling Vehicle Axles.** (*Graisseur pour essieux de voitures.*)

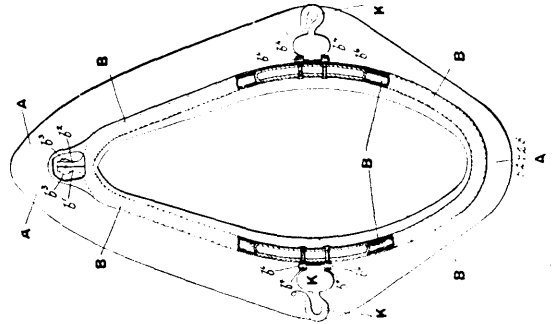


Charles T. Moorman, Packwood, Iowa, U.S.A., 16th July, 1896; 6 years. (Filed 25th June, 1896.)

*Claim.*—1st. In an axle lubricator, the combination with a frame adapted to be attached to a wheel, a lubricant receptacle supported by said frame and provided with a valve for closing its discharge opening, and a lever, connected with said valve and serving to raise the same from its seat when depressed, substantially as described. 2nd. In an axle lubricator, the combination with the frame, having a pivoted part provided with means for automatically moving it in a direction lengthwise of the axle-spindle, of a lubricant receptacle supported by said pivoted part of the frame, substantially as described. 3rd. In an axle lubricator, the combination with the frame, having a pivoted part designed to be engaged with a vehicle wheel, and a spring acting upon said pivoted part for the purpose

specified, of a lubricant receptacle supported by said pivoted part of the frame and movable therewith. 4th. In an axle lubricator, the combination with a frame, having a pivoted part provided with devices for attaching it to a wheel, and a spring acting upon said pivoted part of the frame, of a lubricant receptacle, supported by said pivoted part of the frame and provided with a valve for closing its discharge opening, and a lever, connected with said valve and serving when its free end is depressed to raise said valve from its seat. 5th. In an axle lubricator, the combination with a frame, adapted to be attached to a wheel, of a lubricant receptacle, supported by said frame, and provided with a discharge spout, a valve normally closing the opening through said spout, and a lever for raising said valve from its seat, substantially as described. 6th. The combination with the frame adapted to be attached to a wheel, of a rod, pivoted to said frame, a wrench carried by said rod, and a handle for operating said wrench. 7th. The combination with a frame, having a pivoted part adapted to be attached to a vehicle wheel, of a pivoted rod mounted upon said frame, a wrench carried by said rod, and an operating handle for said rod. 8th. The combination with a frame adapted to be attached to a wheel, of a rod, pivoted to said frame, a wrench carried by said rod, and an operating handle for said rod, said handle having a spring catch substantially as described. 9th. A means for supporting a wheel in vertical position when removed from its axle-spindle, said means embodying a substantially inverted U-shaped frame one side of which is designed to be attached to the wheel and having at its other side a supporting leg having a broadened base detachably secured to it, substantially as described. 10th. The combination with the frame of an axle lubricator, said frame being of a substantially inverted U-shape, one leg of which is designed to be attached to the vehicle wheel, an arm pivoted to the other leg of said frame and provided with an operating handle, and a supporting leg having a broadened base detachably secured to said handle, substantially as described and for the purpose specified. 11th. The herein described lubricator for axle-spindles, embodying a frame made in sections pivotally attached together, a lubricant receptacle supported by one of said sections, a rod pivoted to the other of said sections, and a wrench carried by said rod, substantially as described.

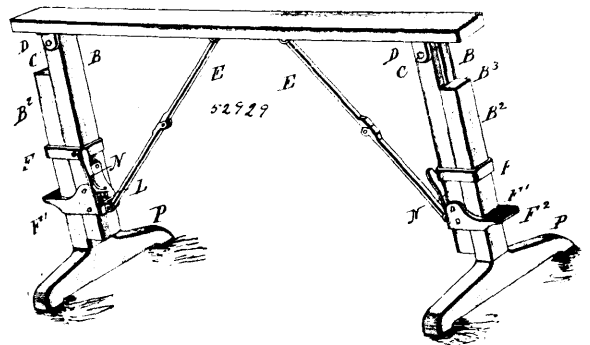
**No. 52,928. Horse Collar.** (*Collier de cheval.*)



Frederick Warner, Wednesbury, Stafford, England, 16th July, 1896; 6 years. (Filed 25th June, 1896.)

*Claim.*—The improved horse collar A, having the fore-wale B made up with and as an integral part of the said collar, substantially as and for the purpose herein set forth and shown upon the drawings.

**No. 52,929. Folding Trestle.** (*Tréteau pliant.*)



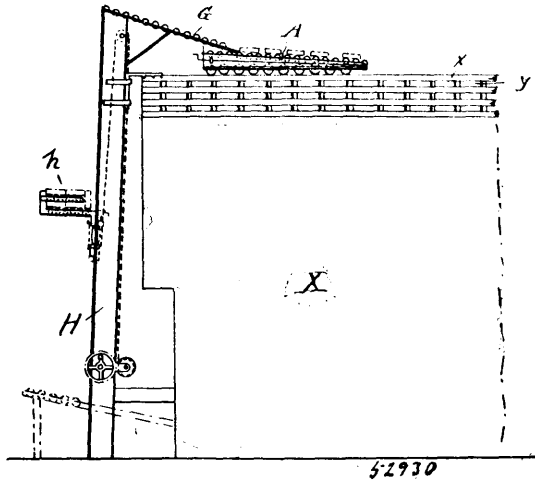
William Bird Sigsby, Harbour Springs, Michigan, U.S.A., 16th July, 1896; 6 years. (Filed 26th June, 1896.)

*Claim.*—1st. The combination of the trestle body, the extensible legs hinged thereto, and the hinged braces connected to the legs and body, so that the braces may be enclosed between the legs and body when folded together, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the trestle body, the leg sections hinged thereto, and the extensible leg sections, said leg



sections having longitudinal tongue and groove and surrounding bands, and means for locking and maintaining the leg sections in extended position, substantially as and for the purpose herein set forth.

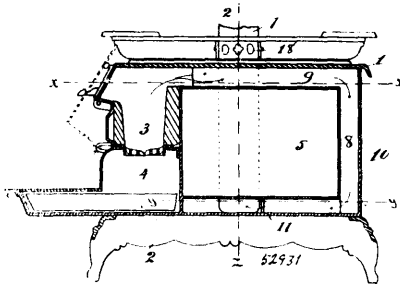
**No. 52,930. Apparatus for Piling Lumber, etc.**  
(Appareil pour mettre le bois en pile.)



Anders Stendahl, Ala, Sweden, 16th July, 1896; 6 years. (Filed 26th June, 1896.)

*Claim.*—1st. The combination, in an apparatus for piling lumber, of a suitable hoist for elevating the lumber, of a spreader for receiving the lumber and placing it properly, comprising a low carriage with an inclined upper surface made up of rollers, suitable wheels, and a detent for preventing the lumber from rolling off the lower end of the carriage, as set forth. 2nd. In an apparatus for piling lumber on a stack or pile, a spreader consisting of a carriage having a series of wheels, an inclined upper surface made up of rollers, and a detent device consisting of a rocking bar E, mounted on the side of the carriage and having a detent lug E<sup>1</sup>, adapted to be turned by the rocking of the bar into or out of the path of the pieces of lumber on the carriage, substantially as set forth. 3rd. The combination in an apparatus for piling lumber, of a hoist for elevating the lumber, inclined roller planes B, arranged at the top of the hoist to receive and deliver the lumber to the spreader, and the spreader A, substantially as set forth.

**No. 52,931. Cooking Stove.** (Poêle de cuisine.)



Frederick Will, Rochester, New York, U.S.A., 16th July, 1896; 6 years. (Filed 25th June, 1896.)

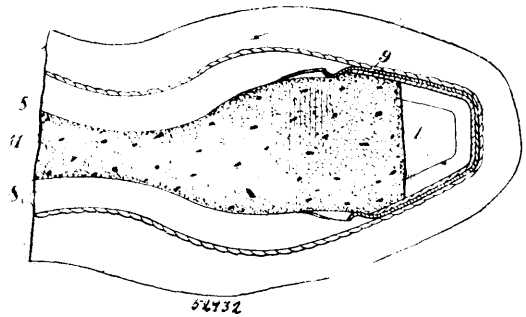
*Claim.*—1st. In a cooking-stove, the combination with the oven, the fire-pot at one end thereof, the broad flues at the top end and bottom of the oven, the partitions 9 and 10 in said top and end flues, the deflector 12 in the bottom flue, the smoke flue 6 opening into the bottom flue at one side of the partition 11, the aperture between the smoke flue 6 and the top flue and the damper 12 controlling it, substantially as described. 2nd. In a stove, the combination with the smoke-pipe having the apertures therein, of the weighted damper 21 pivoted at or near its middle in the pipe below the apertures, the sliding damper 17 movable laterally on the pipe and having apertures adapted to register with those in the latter, said sliding damper engaging the damper 21 above its pivot, whereby when the sliding damper is open admitting air to the pipe above the pivoted damper, the latter will close the flue and *vice versa*, substantially as described.

**No. 52,932. Shoe.** (Chaussure.)

George W. Sleeper, Detroit, Michigan, U.S.A., 16th July, 1896; 6 years. (Filed 25th June, 1896.)

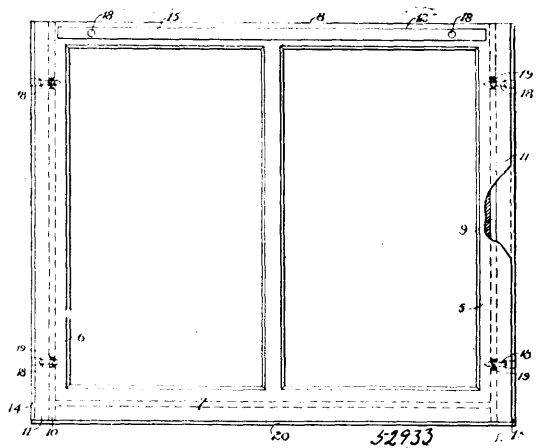
*Claim.*—1st. The herein described turned shoe, which consists of a sole and vamp united together, an insole extending entirely across

the sole and projecting beyond its edges, and an insole retaining flap bound around the projecting edges of the insole and in contact with



the upper and lower surfaces of said projecting edges, substantially as specified. 2nd. The herein described turned shoe, which consists in a vamp and sole secured together by a row of stitches, an insole entirely covering the sole and extending beyond its edges, and an insole retaining flap extending directly upwardly from the upper side of the stitches securing the sole and vamp and around the projecting edges of the insole, substantially as specified.

**No. 52,933. Window Sash.** (Cadre de châssis.)

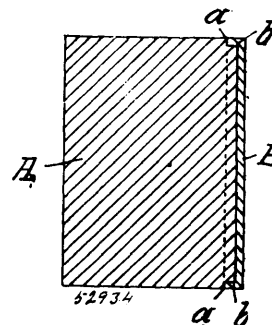


Robert Sutherland, Boston, Massachusetts, U.S.A., 16th July, 1896; 6 years. (Filed 26th June, 1896.)

*Claim.*—1st. In a window-sash, the combination with a bar or rail thereof having a longitudinal groove, of a spring-operated strip operatively mounted in said groove and having a fibrous covering bearing on the walls of the groove. 2nd. The combination with a window-sash having the grooved bars 5 and 6, and the grooved rail 8, of the strips 13, 14 and 15, each having a fibrous covering 16, and the recesses 17 with their perforations, the screws 18 extending through said perforations and secured in the sash, and the springs, as 19, mounted on the screws and acting to press the strips outward, as described.

**No. 52,934. Glass Cover for Facing Bricks.**

(Couvercle de vitre pour façades de briques.)

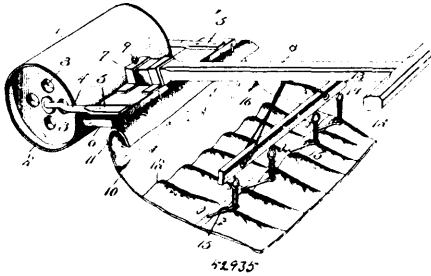


Ernst Böhm, Barnsbury, London, Great Britain, 17th July, 1896; 6 years. (Filed 29th June, 1896.)

*Claim.*—Glass cover for facing bricks, having a vertical square rim b, which fits onto a corresponding groove a of the brick A.

**No. 52,935. Prairie-Fire Extinguisher.**

(*Extingueur de feu de prairie.*)

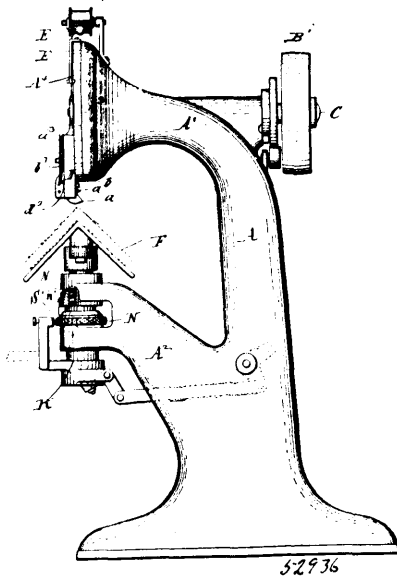


James Dawson, Broadland, South Dakota, U.S.A., 17th July, 1896; 6 years. (Filed 29th June, 1896.)

*Claim.*—1st. In a prairie-fire extinguisher, the combination of a roller provided with a tongue, and a flexible apron arranged to drag in rear of said roller and provided with pockets for the reception of sand or other material to weight the apron, substantially as specified. 2nd. In a prairie-fire extinguisher, the combination of a framework, a roller journaled upon said framework, a tongue connected to the framework, a flexible apron secured at its front edge to the cross-bar of the framework, and an intermediate bar suspended flexibly from the tongue and connected to the apron near its rear free edge, substantially as specified. 3rd. In a prairie-fire extinguisher, the combination of a framework having a cross-bar provided at its rear edge with hooks, a roller journaled upon said framework, a tongue detachably connected to the cross-bar, a weighted apron detachably connected at its front edge to said hooks upon the cross-bar, a bar suspended loosely from the tongue near its free end, and hooks forming a detachable connection between said loosely-suspended bar and the apron, substantially as specified.

**No. 52,936. Wire Stitching Machine.**

(*Machine à piquer avec fil de fer.*)



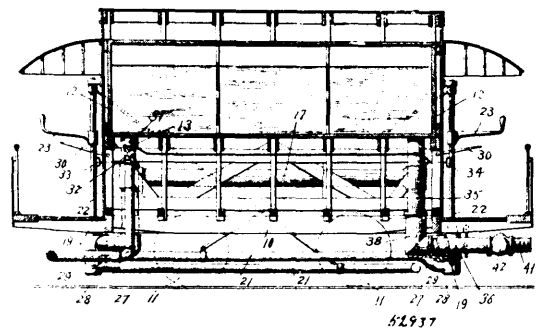
William A. Philpot, jr., Niagara Falls, New York, and Thomas A. Briggs, Arlington, Massachusetts, both in the U.S.A., 17th July, 1896; 6 years. (Filed 16th May, 1896.)

*Claim.*—1st. In combination with the vertically movable book-supporting table, screw and nut for raising and lowering the same, anvil, staple former and staple driver over said table, wire feeding mechanism, and a wire cutter supported movably toward and from said anvil, a feed regulating device controlling the feed mechanism, a graduated scale indicating the elevation of the aforesaid table, and a corresponding scale indicating the effective position of the aforesaid feed regulating device, as and for the purpose set forth. 2nd. In combination with the anvil, staple former, staple driver and their actuating wheel, wire feeding rollers, a wire cutter connected to a carrier sustained movably toward and from said anvil, a loosely mounted gear wheel receiving motion from the aforesaid actuating wheel, a ratchet wheel fastened to the axis of one of the feeding rollers, a pawl connected to the aforesaid gear wheel, a stationary shield covering a portion of the periphery of the ratchet wheel, a revoluble shield concentric to the ratchet wheel, a lever secured to the axis of the revoluble shield to adjust the same to cover a greater or less number of ratchet teeth, and a rod connecting said lever

with the cutter carrier to adjust the latter simultaneously with the aforesaid shield. 3rd. In combination with the anvil, staple former, staple driver and actuating wheel of said driver, wire feeding rollers geared to rotate in unison, a ratchet wheel fastened to the axis of one of said rollers, a shaft extending longitudinally through said roller shaft and revoluble independently thereof, a rotary gear wheel mounted loosely on said shaft, a pawl on said gear wheel, a stationary shield covering a part of the periphery of the ratchet wheel, a shield fastened to the aforesaid internal shaft and extending across a portion of the periphery of the ratchet wheel, a lever fixed to the latter shaft, a graduated scale traversed by said lever and provided with locking devices for retaining the lever, a toothed segment turning with the lever, a cutter carrier movable toward and from the anvil, and a rod connected at one end to the cutter carrier and provided at the opposite end with a rack engaging the segment, as set forth. 4th. The combination with the face plate and feed roller and guide rollers pivoted to said plate, a supplemental plate connected to the edge of said face plate adjustably toward and from the same, a co-operating feed roller pivoted to the supplemental plate, a bracket mounted on the latter adjustably toward and from the aforesaid guide rollers, and co-operating guide rollers pivoted to said bracket, as set forth. 5th. In combination with the face plate A<sup>2</sup>, wire cutter and wheel B, respectively in front and rear of said plate and the wire feeding mechanism, staple former and staple driver, all actuated by said wheel, the cam *w* on the aforesaid wheel, and the tumbler *t* pivoted in the face plate and provided with the lug *l*<sup>1</sup> in the path of the aforesaid cam, and with the finger *r*<sup>2</sup> for depressing the cutter, all combined to definitely operate in unison, as set forth. 6th. In combination with the face plate and a rotary wheel, a cam fixed to said wheel, a carrier secured to the exterior of said face plate, a wire guide extending through the lower portion of the carrier, a stationary cutter in one end of said guide, a vertically movable plunger carried on the carrier, a cutter attached to said plunger, a spring sustaining the plunger in its elevated position, and a tumbler pivoted in the face plate and provided at its inner end with a lug in the path of the aforesaid cam, and a finger projecting from the outer end of the tumbler and depressing the plunger by force derived from the engagement of the lug with the cam, as set forth. 7th. The combination with the anvil provided with a slot, of a detaining finger having an inclined face which is adapted to engage with the wire blank and hold the same in said slot, substantially as set forth. 8th. The combination with the anvil and the former, of a detaining finger adapted to hold the wire blank on said anvil, a lever connected with said detaining finger and a cam arranged on said former and adapted to engage with said lever, substantially as set forth. 9th. In combination with the face plate and a rotary wheel, a cam fixed to said wheel, a carrier secured to the exterior of said face plate, a wire guide extending through the lower portion of the carrier, a stationary cutter in one end of said guide, a vertically movable plunger carried on the carrier, a cutter attached to said plunger, a spring sustaining the plunger in its elevated position, and a tumbler pivoted in the face plate and provided at its inner end with a lug in the path of the aforesaid cam, and a finger projecting from the outer end of the tumbler and depressing the plunger by force derived from the engagement of the lug with the cam, as set forth.

**No. 52,937. Railway Street Sprinkler.**

(*Arrosoir pour rues.*)



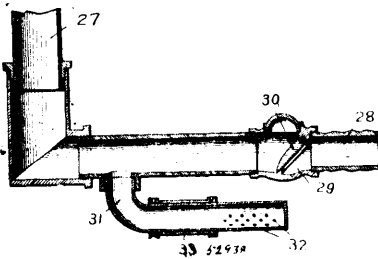
The American Car Sprinkler Company, Worcester, Massachusetts, assignee of John R. Gathright and Josiah B. Gathright, both of Louisville, Kentucky, all in the U.S.A., 17th July, 1896; 6 years. (Filed 22nd April, 1896.)

*Claim.*—1st. The improvements in railway street sprinklers, as herein shown and described. 2nd. The combination of a car-body, a tank located in said car-body, supply-pipes leading from said tank, and sprinkler-pipes pivotally connected to said supply-pipes, one of said sprinkler-pipes being mounted substantially at each corner of the car-body, whereby two oppositely extending sprinkler-pipes can be controlled from either end of the car, substantially as described. 3rd. The combination of a car-body, a tank mounted to said car-body, a filler-pipe connected to said tank, said filler-pipe being mounted so that it may swivel or turn to co-operate with sources of

water-supply, at either side of the track, substantially as described. 4th. In a device of the class described, the combination of a car-body, a tank mounted in said car-body, a vertical pipe leading to said tank, and a horizontal filler-pipe pivotally mounted on said vertical pipe, whereby said filler-pipe may be turned to co-operate with sources of water supply at either side of the tank, substantially as described. 5th. In a device of the class described, the combination of a car-body, a tank, a pivoted sprinkler-pipe having perforations along one side and connected to said tank, a shut-off slide adapted to cover the perforations in said sprinkler pipe, and means for actuating said shut-off slide, substantially as described. 6th. In a device of the class described, the combination of a car-body, a tank located in said car-body, a pivoted sprinkler-pipe connected to said tank and having perforations along one side, a shut-off slide located inside of the sprinkler-pipe, and having perforations corresponding with the perforations in said sprinkler-pipe, and means for moving the shut-off slide to cover or uncover the perforations in the sprinkler-pipe, as desired, substantially as described. 7th. The combination of a supply pipe, a casing carried by said supply pipe, a plug pivotally mounted in said casing, a shaft extending from the upper end of said plug, a perforated sprinkler-pipe connected to the lower end of said plug, a shut-off slide adapted to cover the perforations in said sprinkler-pipe, and a handle pivotally mounted on said shaft, and connected to actuate said shut-off slide, substantially as described. 8th. The combination of a car-body, a tank, a pivoted sprinkler-pipe connected to said tank and having perforations along one side, a shut-off slide adapted to cover the perforations in said sprinkler-pipe, and toggle levers or links connected to actuate said shut-off slide, substantially as described. 9th. The combination of a supply-pipe, a casing carried by said supply-pipe, a plug pivotally mounted in said casing, a shaft extending from the upper end of said plug, a perforated sprinkler pipe connected to the lower end of said plug, a shut-off slide adapted to cover the perforations in said sprinkler-pipe, toggle-levers or links connected to said shut-off slide, and a handle pivotally mounted on said shaft and connected to actuate said toggle-levers or links, substantially as described.

**No. 52,938. Railway Street Sprinkler.**

(*Arrosoir pour rues.*)

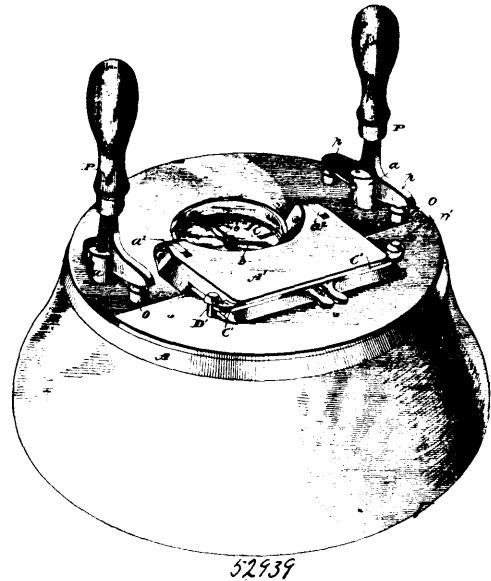


The American Car Sprinkler Company, Worcester, Massachusetts, assignee of John R. Gathright and Josiah B. Gathright, both of Louisville, Kentucky, all in the U.S.A., 17th July, 1896; 6 years. (Filed 22nd April, 1896.)

*Claim.*—1st. The improvement in railway street sprinklers, as herein shown and described. 2nd. In a device of the class described, the combination of a pivoted sprinkler-pipe, a valve for admitting water to the sprinkler-pipe, and a single handle connected to simultaneously turn the sprinkler-pipe and to control the valve, substantially as described. 3rd. In a device of the class described, the combination of a supply pipe, a sprinkler-pipe pivotally connected to said supply pipe, a valve turning with the sprinkler-pipe, and means for actuating said valve, substantially as described. 4th. In a device of the class described, the combination of a supply pipe, a casing located at the end of said supply pipe, a plug pivotally mounted in said casing, a sprinkler-pipe carried by said plug, a valve mounted in said plug in line with said sprinkler-pipe, and means for actuating said valve, substantially as described. 5th. In a device of the class described, the combination of a supply pipe, a casing carried by said supply pipe, a hollow plug pivotally mounted in said casing, a sprinkler-pipe connected to said plug, a valve located in line with said sprinkler-pipe, and a single handle connected to turn said sprinkler-pipe and to actuate. 6th. In a device of the class described, the combination of a supply pipe, a casing carried by said supply pipe, a plug pivotally mounted in said casing, a shaft connected to the upper end of said plug, a sprinkler-pipe leading from the lower end of said plug, a spring-pressed valve located in said plug in line with said sprinkler-pipe, and a handle pivotally connected to said shaft, for simultaneously turning said shaft and actuating said valve, substantially as described. 7th. The combination of a car-body, a tank mounted in said car-body, a filler-pipe leading to said tank, and sprinkling devices combined with and supplied by said filler-pipe, substantially as described. 8th. The combination of a car-body, a tank mounted in said car-body, a filler-pipe leading to said tank, a coupling or nozzle secured to the end of said filler-pipe, and a check-valve adjacent to said coupling, substantially as described. 9th. The combination of a

car-body, a tank mounted in said car-body, a filler-pipe leading to said tank, a perforated track-sprinkler-pipe combined with and connected to said filler-pipe, a sleeve for covering the perforations in the track-sprinkler-pipe, and connections for actuating said sleeve from either end of the car, substantially as described.

**No. 52,939. Calcutigraph. (*Calcutigraphie.*)**

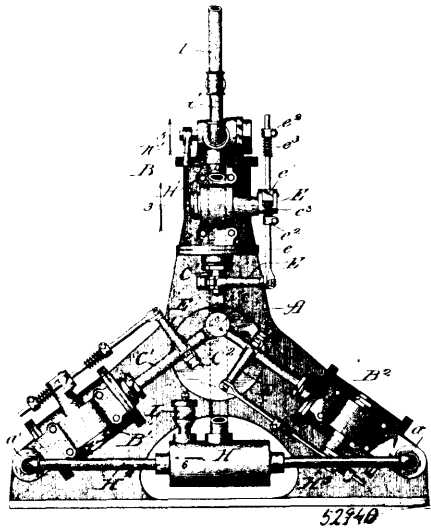


Henry Abbott and Edwin Augustus Currier, both of New York, State of New York, U.S.A., 17th July, 1896; 18 years. (Filed 8th April, 1896.)

*Claim.*—1st. The combination of mechanism for measuring and recording intervals, comprising dial and pointer dies and means for printing therefrom, time of day dies and means for printing from the same, substantially as and for the purpose specified. 2nd. In a mechanism for making printed records, the combination with independently operative printing dies, of a single lever adapted to operate both of the same, substantially as and for the purpose shown. 3rd. In a mechanism for making printed records, the combination of dies for printing the record of intervals, dies for printing the time of day, and a single lever for printing from each of said dies, substantially as and for the purpose set forth. 4th. In a machine for making printed records, the combination of dies for printing the record of intervals, dies for printing the time of day, and a single lever adapted by alternate movement to print from each of said dies, substantially as and for the purpose described. 5th. In a recording machine, the combination of recording mechanism, a time of day mechanism, a clock movement for driving both of said mechanisms, and gearing whereby the time of day mechanism may be set without affecting the recording mechanism, substantially as and for the purpose specified. 6th. In a machine for making printed records, the combination of a supporting plate, the several sets of dies, levers for actuating said dies to cause them to print, and a single bar or frame to which all of such levers are pivoted, that is removably secured to said supporting plate, substantially as and for the purpose shown. 7th. In a machine for making printed records, the combination of the printing die, an operating lever adapted to be grasped by the hand of the operator, and means connecting said hand lever to the die, substantially as and for the purpose set forth. 8th. In a machine for making printed records, the combination of the vertically movable die, the lever adapted to move the same, the vertically movable rod engaging said lever, and the hand lever engaging said rod, substantially as and for the purpose described. 9th. In a machine for measuring and recording intervals, the combination of an indicator having a progressive series of indices, means for moving said indicator at a certain rate, a pointer to co-operate with said indices, and means whereby the indication for a certain interval may be in excess of that actually measured by the machine at the rate at which it is run during the interval, substantially as and for the purpose specified. 10th. In a machine for measuring and recording intervals, the combination of a rotary part having an annular progressive series of indices, means for rotating such part at a certain rate, a pointer for co-operating with said indices, and means whereby said pointer may be held in indicating position relative to an index of the series between the first and last thereof, substantially as and for the purpose shown. 11th. In a machine for measuring and recording intervals, the combination of a rotary die, having a progressive series of indices, means for rotating said die, a pointer, and means for holding said pointer in any one of several positions relative to the die indices, substantially as and for the purpose set forth. 12th. In a recording machine, the combination of time of day indicating mechanism, devices for indicating a.m. and p.m. respectively, and

means whereby said devices are automatically placed in and out of operative position, substantially as and for the purpose described. 13th. In a printing recording mechanism, the combination of time of day printing dies, dies for printing a.m. and p.m., respectively, and devices operated by the time of day mechanism for determining which of the latter two dies shall print, substantially as and for the purpose specified. 14th. In a printing recording mechanism, the combination of time of day printing dies, movable blocks carrying dies for printing a.m. and p.m., respectively, the rotary plate movable alternately into and out of engagement with said blocks, means for moving said plate, and means for simultaneously moving said plate and the time of day dies, substantially as and for the purpose shown. 15th. In a machine for measuring and recording intervals, the combination of printing dies, a time train to drive the same, a supporting plate, and a platen hinged to said plate, having a suitable card or paper clamp, substantially as and for the purpose set forth. 16th. In a machine for measuring and recording intervals, the combination of printing dies, a time train to drive the same, a supporting plate, a platen hinged to the top of the latter having a card or paper clamp, and latch mechanism to hold said platen in its lowered position, substantially as and for the purpose described. 17th. The combination of two ribbon holding spools, having each a feed mechanism, means to alternately render the latter operative to feed the ribbon, substantially as and for the purpose specified. 18th. The combination of two ribbon holding spools, having each a ratchet wheel, a pawl for each wheel, and a pivoted bar carrying fingers adapted to engage each pawl alternately, to throw and hold the same out of engagement with its ratchet wheel, substantially as and for the purpose shown. 19th. In a printing recording mechanism, the combination of the printing dies, a supporting plate, two ink ribbon holding spools, feed mechanism for such ribbon, and a frame journalling said spools and having ribbon supports and guides that is detachably connected to the supporting plate, substantially as and for the purpose set forth. 20th. In a machine for measuring and recording intervals, the combination of the printing dies, the motor for driving the same, gearing for connecting the motor and the dies, a supporting frame for such parts, and gear wheels for determining the rate at which the motor shall drive the dies placed upon the outside of the frame, whereby they may be readily removed and replaced, substantially as and for the purpose described.

**No. 52,940. Engine. (Machine à vapeur.)**

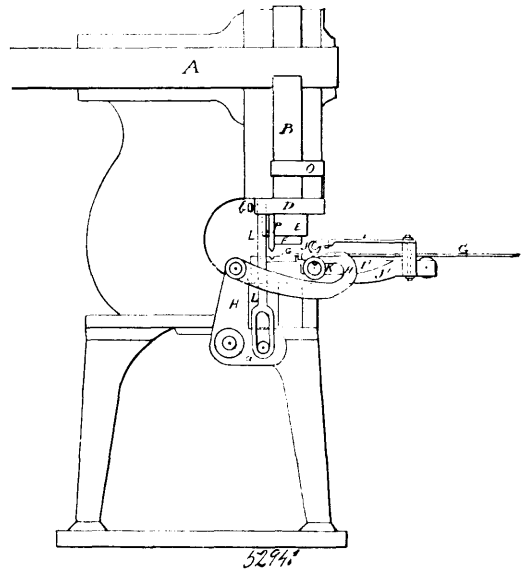


The Comstock Motor Company, assignee of Francis Marion Comstock, both of Topeka, Kansas, U.S.A., 17th July, 1896; 6 years. (Filed 15th May, 1896.)

*Claim.*—1st. In a multiple engine, the combination of three oscillating cylinders, one of such cylinders arranged to take fluid pressure primarily, a pipe for conveying and guiding the fluid pressure as it is exhausted from the primary cylinder to the ports of the secondary cylinders, an expansion chamber on such pipe to receive the exhaust of the primary cylinder before it enters the ports of the secondary cylinders, an inlet pipe connected with such exhaust pipe and with the port of the primary cylinder for supplying fluid pressure to the same, and a transforming valve interposed between the pipe leading to the secondary cylinders, the outlet pipe and the exhaust of the primary cylinder to open communication between such pipes and between the exhaust of the primary cylinder and the outer air when in one position, and to close communication between such pipes and between the exhaust of the primary cylinder and the outer air, and open communication between the exhaust of the primary cylinder and the ports of the secondary cylinder when in its other position, substantially as described. 2nd. In a multiple engine, the combination of three oscillating cylinders, one of such cylinders arranged to take fluid pressure primarily, a pipe leading

from the exhaust of the primary cylinder to the ports of the secondary cylinders, an inlet pipe to furnish fluid pressure to the primary cylinder, an expansion chamber arranged on the pipe connecting the three cylinders to furnish a chamber for the expansion for the exhaust fluid pressure as it leaves the primary cylinder and before it reaches the secondary cylinders, and a poppet valve on such expansion chamber to regulate any fluid pressure contained therein, substantially as described. 3rd. In an engine provided with a reciprocating piston and rotary valve, a bifurcated lever arm on such rotary valve provided with two substantially flat portions and a projecting portion, a platen arranged adjacent to such lever arm and provided with a notch to receive the projection and adapted to hold the valve lever arm at each limit of its motion and the central portion of its motion, and a spring normally to keep the platen in contact with the valve lever arm, substantially as described.

**No. 52,941. Machine for making Fence-Grips and Washers. (Fabrication de liens de clôtures et rondelles.)**



Joel Bennitt and Thomas Bossor, both of London, Ontario, Canada, 17th July, 1896; 6 years. (Filed 16th May, 1896.)

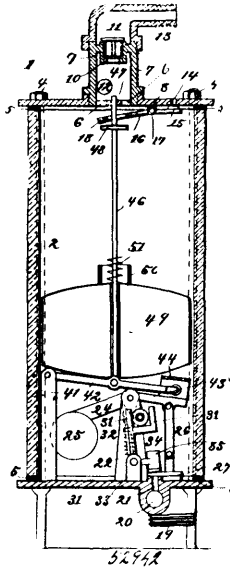
*Claim.*—1st. The piston B, operated by shaft A and eccentric C, and having cutters or dies F attached thereto, substantially as shown and specified and for the purpose described. 2nd. The shoe J<sup>1</sup>, spring-bars I and I<sup>1</sup>, and wheel J, substantially as shown and specified and for the purpose described. 3rd. The feed-arm H, pivoted at a to frame of machine and operated by the adjustable rod L, adjusted by jam-nut h and attached to piston B and actuated thereby, substantially as shown and specified and for the purpose described. 4th. The ratchet K, controlled by feed-arms H, substantially as shown and specified and for the purpose described. 5th. The cleaner M, and rods N, attached to block O, substantially as shown and for the purpose described. 6th. The crimper P, attached to foot of piston B, so as to crimp the grips in all cases across the grain of the metal, substantially as shown and specified and for the purpose described.

**No. 52,942. Hydraulic Air Compressor. (Compresseur hydraulique à air.)**

The Berner Mayer Company, Cleveland, Ohio, assignee of Adolph Gustav Noack, Brooklyn, New York, both in the U.S.A., 17th July, 1896; 6 years. (Filed 9th May, 1896.)

*Claim.*—1st. In a hydraulic air compressor, the combination with a cylindrical casing having a top and bottom, of water ingress and discharge ports in the bottom thereof, a weighted lever pivotally supported on standards and connected with and operating valves which control the water ingress and discharge ports, an auxiliary lever pivotally supported at one end within the casing and being connected at the other end with the free end of the weighted lever, a rod pivotally connected with said auxiliary lever and extending upward through said casing, and a float mounted on said rod and adapted to operate an air ingress valve in the top of said casing and the levers which control the water ingress and discharge ports, substantially as shown and described. 2nd. In a hydraulic air compressor, the combination with a casing having a top and bottom, the top thereof being provided with an air ingress port controlled by an automatic valve and an air discharge tube communicating with a chamber within the casing and with an air receiver and provided with an automatic valve, of a water ingress port at the bottom of the casing, a pivoted crank lever provided at one end with a valve controlling said port and at the other with jaws or arms, a water

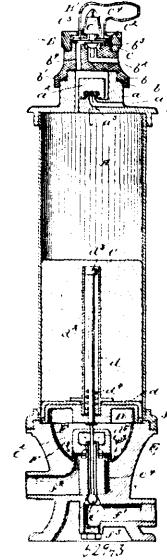
discharge port, a weighted lever mounted on a shaft pivotally supported on standards secured to the bottom of the casing, and a crank



arm or lever connected with one end of said shaft and having mounted on one end thereof a roller adapted to rest and operate within the jaws or arms connected with the lever which carries the valve of the water ingress port, and an arm or rod pivotally connected at one end with the free end of the weighted lever and at the other with a valve adapted to close the water discharge port, and means for operating said weighted lever to open and close said valves and also to operate the air ingress valve in the top of the casing, substantially as shown and described. 3rd. In a hydraulic air compressor, the combination with a hollow cylinder having water ingress and discharge ports in the bottom thereof, an air ingress port in the top, controlled by an automatic valve, and also a pipe communicating with an air receiver, of valves controlling the water egress and discharge ports, operated by a weighted lever, one of the said valves being controlled by a crank lever pivotally connected with the weighted lever near the centre thereof and the other by an arm or rod pivotally connected with the free end of said weighted lever, and a float also connected with the free end of said weighted lever and adapted to operate the valve controlling the air ingress port at the top of the cylinder and also the valves controlling the water ingress and discharge ports through the weighted lever, substantially as shown and described. 4th. In a hydraulic air compressor, the combination with a cylindrical casing having a top and bottom, of an air tube communicating therewith at the top thereof and also with an air receiver, said tube being provided with an automatic air egress valve, and an air ingress port also in the top of said casing provided with an automatic valve connected with one end of a lever pivoted within the casing, water egress and discharge ports in the bottom of said casing and a pivoted weighted lever secured to a shaft mounted in standards secured to the bottom of said casing, said lever shaft being also provided with a crank arm connected with and operating a pivotally supported crank lever, with one arm of which is connected a valve adapted to close the water ingress port, and a rod or arm pivotally connected with the free end of said weighted lever and also adapted to close the discharge port, and an auxiliary lever pivotally supported at one end within the casing and being loosely connected at the other end with the said weighted lever, and a vertical rod pivotally connected with said auxiliary lever and passing upward through the casing and through a slot in the lever which controls the air ingress valve, and a float mounted on said rod and adapted to operate each of said valves and levers, substantially as shown and described. 5th. In a hydraulic air compressor, the combination with a cylindrical casing having a top and bottom, and an air discharge tube and automatic air ingress valves communicating with said casing through the top thereof, said air discharge tube being provided with an automatic valve and said ingress port being controlled by a valve mounted on a lever pivotally supported within the casing, of water ingress and discharge ports in the bottom of said casing, and a weighted lever mounted on a shaft pivotally supported on standards secured to the bottom of said casing, a crank arm connected with one end of said shaft also connected with and operating a crank lever pivotally supported and carrying on one arm a valve adapted to close the ingress port, and a rod or arm pivotally connected with the free end of a weighted lever and with a valve adapted to close the discharge port, the other end of said weighted lever shaft being provided with a crank arm, on the free end of which is mounted one end of a rod the other end of which is connected with a shaft pivotally supported near the bottom of the cylinder, a spring mounted on said arm, and an auxiliary lever pivotally

supported at one end within the casing and being connected at the other end with the free end of the weighted lever, a vertical rod pivotally connected with the auxiliary lever near the centre thereof and extending upward through the casing and through a slot in the lever which controls the air ingress port, and a float mounted on said rod and adapted to operate the air ingress valve and the levers which operate the valves which control the water ingress and discharge ports, substantially as shown and described.

**No. 52,943. Hydraulic Air Compressor.**  
(Compresseur hydraulique à air.)



The Berner Mayer Company, Cleveland, Ohio, assignee of Adolph Gustav Noack, Brooklyn, New York, both in the U.S.A., 17th July, 1896; 6 years. (Filed 9th May, 1896.)

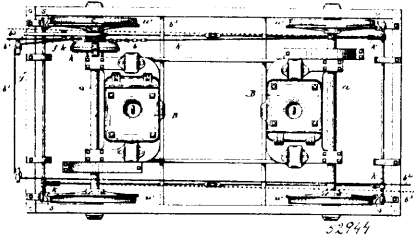
*Claim.*—1st. In a hydraulic air compressor, the combination of an air and water chamber having air inlet and outlet valve mechanism, a traveller actuated by the water within said chamber, a water inlet channel, a water outlet channel, a single water inlet valve seating against the lower end of said water inlet channel and solely controlling the inlet water relatively to the latter, a water outlet valve, a valve stem connecting said traveller with said water inlet valve, and solely actuating the latter in its opening movement down from its seat, substantially as set forth. 2nd. In a hydraulic air compressor, the combination of a chamber having air inlet and outlet valve mechanism, a traveller actuated by the water within such chamber, a water inlet channel, a water outlet channel, a valve stem mechanically connected to said traveller, a water inlet valve and a water outlet valve respectively connected to different points of such valve stem, substantially as set forth. 3rd. In a hydraulic air compressor, the combination of a chamber having air inlet and outlet valve mechanism, a traveller actuated by the water within such chamber, a water inlet channel, a water outlet channel, a valve stem mechanically connected to said traveller and passing through said water inlet channel, a water inlet valve, and a water outlet valve, respectively connected to different points of such valve stem, substantially as set forth. 4th. In a hydraulic air compressor, the combination of a chamber having air inlet and outlet valve mechanism, a traveller actuated by the water within such chamber, a water inlet channel, a water outlet channel, a valve stem mechanically connected to said traveller and passing through said water inlet channel, such stem carrying a water inlet valve that seats against the water entrance end of said water inlet channel, and also carrying a water outlet valve attached thereto adjacent to the discharge end of said water inlets channel, substantially as set forth.

**No. 52,944. Car Brake.** (Frein de chars.)

The LaRose Car Brake Company, New Bedford, Massachusetts, assignee of Eugene E. LaRose, Providence, Rhode Island, both in the U.S.A., 17th July, 1896; 6 years. (Filed 29th June, 1896.)

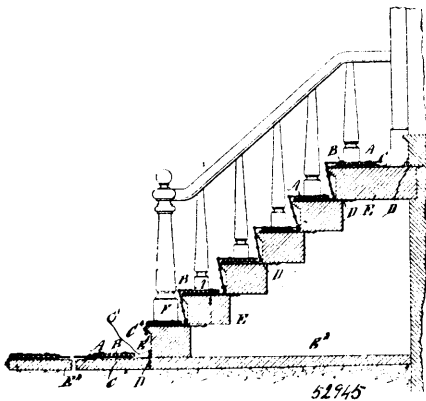
*Claim.*—1st. In a power-clutch, the combination, substantially as hereinbefore described, with fast and loose clutch members, a shaft or axle having said clutch members mounted thereon, and one or more suitably-shaped collars mounted on said shaft contiguous to the loose member of the clutch, of a shipper provided with a series of anti-friction members, as *n*, capable of co-acting with said collars to force the clutch members into engagement with each other, and means controlled by the operator or brakeman for actuating the shipper. 2nd. The combination with a friction-clutch, consisting of a fixed member and a movable member, as *h*<sup>1</sup>, of a shipper device provided with a series of anti-friction rolls or balls arranged to co-

act with the said movable member in forcing the clutch members together, and means controlled by the brakeman for forcing the



said anti-friction members into action, substantially as hereinbefore described and for the purpose set forth. 3rd. The shipper device for power-clutches, substantially as described, the same consisting of suitable collar members, as *c*, adapted to be mounted on the clutch-shaft or axle, a shipper-arm or yoke *f*, a block or cross-head *i* movable in said yoke, a series of anti-friction members *n* mounted in the yoke and block, and means for forcing said members *n* into frictional engagement with the adjacent faces of said collars for the purpose set forth. 4th. In a power-braking device for railway cars, the combination with fast and loose clutch members mounted on the shaft or axle, and having one of said clutch members coupled to the brake connections, of a pair of suitably-mounted, oppositely-bevelled collars arranged on said axle contiguous to the other member of the clutch, a shipper capable of being expanded and contracted, having a series of anti-friction rolls in engagement with the bevelled faces of said collars, and means connected with the usual operating or brake-lever and with said shipper, whereby the latter is forced into action for the purpose set forth. 5th. In friction-clutch mechanism for power-braking apparatus for street railway cars, the combination of a pair of loose collars mounted on the axle contiguous to the clutch, and a movable shipper member supported by and in continuous engagement with said collars, substantially as hereinbefore described.

**No. 52,945. Runner for Stoops and Sidewalks.**  
(*Couvercle pour trottoirs, etc.*)

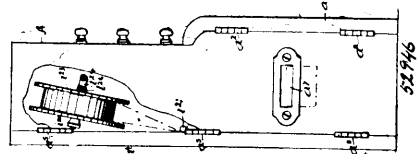


Archia Lemon Ross, New York, State of New York, Frank Steiger Bennett, Cumberland Gap, and Christopher Columbus Scott, Wesley, both in Tennessee, all in the U.S.A., 17th July, 1896; 6 years. (Filed 29th June, 1896.)

*Claim.*—1st. A covering or runner for stoops, comprising a series of mats flexibly connected with each other, and means for removably securing the mats to the stoop, substantially as described. 2nd. A covering or runner for stoops and sidewalks, comprising a series of mats flexibly connected with each other, each mat being provided at the rear with a strip having an upturned flange and formed with openings, and hooks permanently secured to the steps and adapted to be engaged by the said openings, substantially as described. 3rd. A covering or runner for stoops and sidewalks, comprising a series of mats each provided at the rear with a strip formed with openings and having an upturned flange, chains for connecting the mats with each other, hooks permanently secured to the steps and adapted to be engaged by the said openings, and locking devices for fastening the said mats to said hooks, substantially as set forth. 4th. A runner for stoops and sidewalks, comprising a series of mats, lateral top and bottom strips connected with each other and to the edge of the mat near the side thereof, the bottom strips being connected with each other at their rear by a longitudinal strip having an upturned flange and formed with openings, and hooks permanently secured to the step and adapted to be engaged by said openings, substantially as shown and described. 5th. A runner for stoops and sidewalks, comprising a series of mats, lateral top and bottom strips connected with each other and to the edge of the mat, near the side thereof, the bottom strips being connected with each other at their rear by a longitudinal strip having an upturned flange and formed with

openings, hooks permanently secured to the step and adapted to be engaged by said openings, and chains for connecting the front ends of the top strips with the upturned flange of the longitudinal strip for the next mat, substantially as shown and described. 6th. A runner for stoops and sidewalks, comprising a series of mats, lateral top and bottom strips connected with each other and to the edge of the mat, near the side thereof, the bottom strips being connected with each other at their rear by a longitudinal strip having an upturned flange, and formed with openings, and hooks permanently secured to the step and adapted to be engaged by the said openings, some of the mats having their lateral bottom strips formed into hooks, substantially as shown and described. 7th. A runner for side-walks, comprising a series of mats having lateral top and bottom strips riveted together on the mat, chains for connecting the strips of one mat with those of the next following mat, hooks engaged by the mat next to the step, and pins fixed in the sidewalk and adapted to be engaged by depending notched flanges on the bottom strips of the outermost mat, substantially as shown and described.

**No. 52,946. Cash Register.** (*Régistre de monnaie.*)

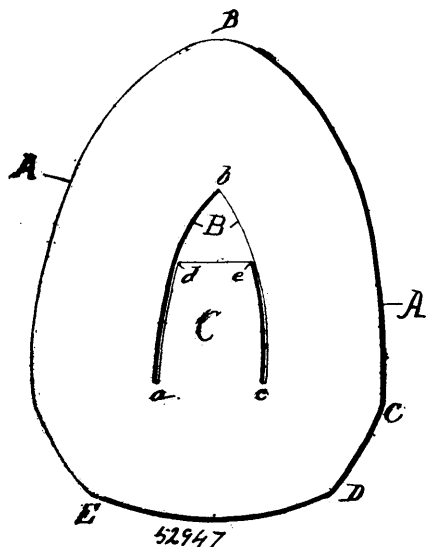


Edward Shaw Sharpe, Montreal, Quebec, Canada, assignee of Robert H. Thompson, New York, and Edward W. Morton, White Plains, both in the State of New York, U.S.A., 17th July, 1896; 6 years. (Filed 19th May, 1896.)

*Claim.*—1st. In a cash register, the combination of a number of drums having indicating symbols upon their peripheries, a number of printing drums each having two series of printing types arranged upon its periphery in substantially the same plane transverse to its axis, a hinged bed or platen provided with two impression surfaces over each of which a paper strip is passed, means for actuating the bed or platen and causing both strips to be printed upon, and means for severing one of said strips to form detached checks, substantially as specified. 2nd. In a cash register, in combination with indicating and recording parts, a total adding mechanism, whose movement is in part controlled by said indicating parts, and which consists of a series of adding wheels, stop-wheels, spur-wheels having a pawl and ratchet connection to adjacent adding-wheels, levers co-acting at one extremity with pins or studs provided upon the indicating parts, and provided at the opposite extremity with toothed segments meshing with said spur-wheels, and means for actuating an adding-wheel upon the completion of the rotation of an adjacent adding-wheel, substantially as specified. 3rd. In a cash register, the combination of indicating parts for indicating the amount of sales, stops or pins on these indicating parts, recording parts for recording the amount of sales, means for adjusting these parts, adding-wheels for preserving the total amount of individual sales, stop-wheels attached to said adding-wheels, spur-wheels having a pawl and ratchet connection to adjacent adding-wheels, segmental toothed levers meshing with said spur-wheels and adapted to press against said pins or stops at their free ends, a shaft provided with cams for actuating these segmental levers, and pivoted levers for actuating an adding-wheel upon the completion of the rotation of an adjacent adding-wheel, substantially as specified. 4th. The combination of a number of adding-wheels by a pawl and ratchet connection, segmental toothed levers which mesh with the spur-wheels and which are provided with transversely extending pins or studs, a shaft having cams which co-act with these pins or studs to rock the segmental toothed levers, drums provided with pins at varying distances from the centre for defining the normal or initial positions of the said segmental levers, springs for moving these levers immediately preceding their movements in a direction opposite to that in which they are moved by said cams, and pivoted levers for actuating an adding-wheel upon the completion of the rotation of an adjacent adding-wheel, substantially as specified. 5th. The combination of a series of adding-wheels, stop-wheels attached to these adding-wheels and provided with projecting pins, spur-wheels having a pawl and ratchet connection to adjacent adding-wheels, pivoted levers extending into the paths of motion of said projecting pins and which are provided with pivoted pawls at one end for co-acting with said stop-wheels and which are also provided with curved projecting arms, a shaft having a series of projections along its length for co-acting with said projecting arms to move the said pivoted levers in a direction opposite to that in which said levers are moved by pins on said stop-wheels, whereby motion from one adding-wheel may be transmitted to the next higher adding-wheel, substantially as specified. 6th. In a cash register, the combination of indicating parts for indicating the amount of sales, stops or pins extending from these indicating parts, recording parts for recording the amounts of sales, means for adjusting these parts, a series of adding-wheels for preserving the total amount of individual sales, levers which are spring pressed into contact with these pins or stops and by which the initial or normal positions are determined for actuating these adding-wheels, and a

shaft for actuating said levers, substantially as specified. 7th. A device for preventing the continuous rotation of a shaft comprising in combination a ratchet-wheel secured to the shaft and provided with a mutilated portion, a pin or stud extending from the ratchet-wheel, a pivoted arm provided with a shoulder with which said pin is adapted to co-act and a raised portion or rib attached to said arm and with the sides of which said pin or stud is adapted to co-act to move the pivoted arm into and out of a position in which the shoulder extends across the path of said pin, substantially as specified.

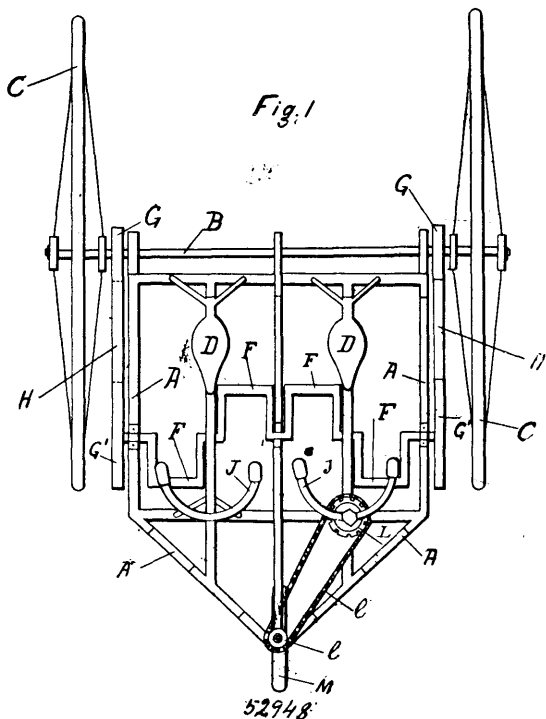
**No. 52,947. Uppers for Shoes. (Empieigne de souliers.)**



Louis Tremblay, St. Henri, et Joseph Tremblay, Montréal, Québec, Canada, 17 juillet 1896; 6 ans. (Déposé le 13 avril 1896.)

**Résumé.**—Une empieigne de soulier d'un seul morceau présentant le contour A, B, C, D, E, A, (figure 1) vers le centre duquel se trouve pratiqué une découpeure a, b, c, et dont une partie intérieure d, e, c, peut se replier en dedans pour former renfort au talon, le tout tel que décrit dans la spécification précédente et montré au dessin

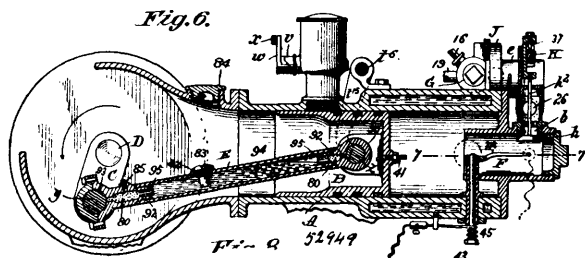
**No. 52,948. Tricycle. (Tricycle.)**



François Malhiot et Pierre Beaudet tous deux de Gentilly, cessionnaires de Hyacinthe Malhiot, cité de Québec, Qué., Canada, 17 juillet 1896; 6 ans. (Déposé le 29 juin 1896.)

**Résumé.**—1° Dans un tricycle, la combinaison, avec la charpente A, de la tige verticale P surmontée d'une barre horizontale J et sur laquelle est fixée, a sa partie inférieure une roue dentée L, et de la roue M convenablement articulée dans un collet m<sup>1</sup> se terminant par un pivot vertical m<sup>11</sup> sur lequel est fixée la roue dentée l, le tout tel que décrit et pour les fins indiquées. 2e. Dans un tricycle, la combinaison, avec la charpente A, pourvue de selles D, de l'arbre B muni de roues dentées G, G<sup>1</sup> et la roue d'avant M, d'un arbre E convenablement articulée à la dite charpente et ployé de manière à former quatre pédales F et muni de roues dentées G<sup>1</sup> à ses extrémités, le tout tel que décrit et pour les fins indiquées.

**No. 52,949. Double-acting Gas and Gasoline Motor. (Moteur à gaz à double effet.)**



James Frank Duryea, Springfield, Massachusetts, U.S.A., 18th July, 1896; 6 years. (Filed 23rd April, 1896.)

**Claim.**—1st. In a motor, in combination, a piston cylinder, an injector chamber and a valved passage communicating therefrom with the cylinder, a service tank and an injector tube communicating therewith and extending rearwardly into the injector chamber, a partition which transversely divides the injector chamber and which has the longitudinally passaged thimble extension widely surrounding the injector tube, an air chamber having communication with the rear compartment of the injector chamber, and means for periodically igniting the motor fluid which is entered at the rear of the piston, substantially as described. 2nd. In a motor, in combination, a piston cylinder, an injector chamber having a valved passage communicating with the cylinder, a service tank, an injector tube communicating therewith and extending rearwardly into the injector chamber, a partition which transversely divides the injector chamber which has the longitudinally passaged thimble of greater diameter than the injector tube which it surrounds, and which partition has the perforations f<sup>3</sup>, f<sup>3</sup>, the aperture register d plate f<sup>3</sup>, overlying the perforated partition, and means for moving it, an air chamber having communication with the rear compartment of the injector chamber, and means for periodically igniting the motor fluid at the rear of the piston, substantially as described. 3rd. In a gasoline or analogous motor, in combination, the service tank G, having the passage 22, leading from a lower portion of its interior upwardly and rearwardly therefrom, the injector tube connecting with said passage, the injector chamber c, enclosing the injector tube and having the thimble enclosed therein which widely surrounds the tube, and which has its rear end in communication with atmospheric air, the cylinder, and piston therein, and connecting ways leading from the injector chamber to the rear part of the cylinder chamber, substantially as described. 4th. In a gasoline or analogous motor, in combination, the service tank G, having the passage 22, leading from a lower portion of its interior upwardly and rearwardly therefrom, the inlet oil-supplying pipe leading into an upper part of the service tank and the overflow pipe 19, leading from an intermediate point in the height of the tank, the injector tube connecting with said passage, the injector chamber c, enclosing the injector tube and having the thimble enclosed therein which widely surrounds the tube, and which has its rear end in communication with atmospheric air, the cylinder and piston therein and connecting ways leading from the injector chamber to the rear part of the cylinder chamber, substantially as described. 5th. In a gasoline or analogous motor, the combination with the service tank G, having the passage 22, leading from a lower portion of its interior upwardly and rearwardly therefrom, the inlet oil-supplying pipe leading into an upper part of the service tank and the overflow pipe 19, leading from an intermediate point in the height of the tank, the injector tube connecting with said passage, the injector chamber c, enclosing the injector tube and having the thimble enclosed therein which widely surrounds the tube, and which has its rear end in communication with atmospheric air, the cylinder and piston therein and connecting ways leading from the injector chamber to the rear part of the cylinder chamber, substantially as described. 6th. In combination, in a gasoline motor, a cylinder having the induction chamber F, opening thereinto at the rear of the cylinder piston, a service tank, an injector comprising a tube connecting with the tank, and an air tube having a communication at a rear portion thereof with a source of air supply, surrounding the injector tube and a chamber into which both of said tubes forwardly enter, the passage b, leading upwardly from the induction chamber F, and having the check valve h, downwardly opening, provided therefor and the passage 26, connecting the injector chamber with said valved passage b, and a spark-producing apparatus located within the said chamber F, comprising a circuit



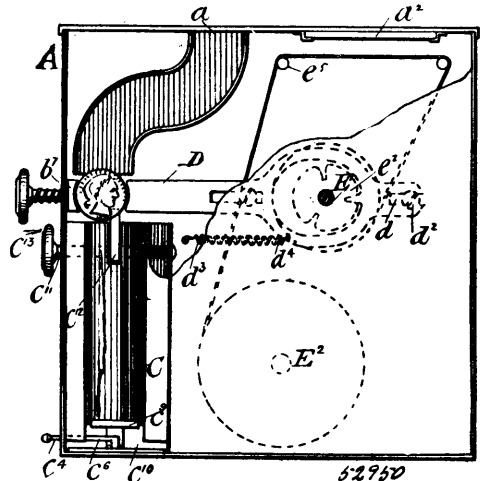
breaker adapted to be moved open mechanically by the piston upon its rearward movement and also comprising electrical conductors and a generator, substantially as described. 7th. In a gas engine, the combination with the passage or conduit *b*, leading to the chamber in the cylinder back of the piston having the valve *h* therefor and the valve stem provided at its top with the yoke *h*<sup>2</sup>, on which is the abutment, 37, of the bar *K*, which is movable transversely of the valve stem and having the recess 50, and its upper edge adjacent the recess inclined, together with a speed governor actuated concurrently with the running of the motor and having a connection with said bar for moving it variably proportionate to the developed speed of the motor, substantially as and for the purpose set forth. 8th. In a motor, the combination with the induction passage *b*, and valve *h* therefor having the valve stem provided with an abutment member, of the bar *K*, which is movable transversely of the length of the valve stem and which has the recess 50, and the inclined edge 52, adjacent the recess, the fly-wheel on the motor shaft having mounted thereon the centrifugal governor arms, and a sliding collar actuated thereby, and a lever 59, deriving movement from said sliding collar and correspondingly imparting movement to the said bar *K*, substantially as described. 9th. In a motor of the character described, the combination with the pair of cylinders and exhaust passages for each arranged at opposite sides of the rear end of the cylinders having valves respectively therefor with projecting valve stems and springs applied for maintaining said stems normally extended and the valves closed, the gear-wheel *s* on the motor shaft, and the gear-wheel *s*<sup>2</sup>, of twice its diameter meshing with said gear *s*, and having secured thereto to move in unison therewith, the eccentrics *t*, *t*<sup>2</sup>, one arranged to revolve in advance of the other, the rock shaft *t*<sup>3</sup> having the depending fixed lever arm *t*<sup>4</sup>, and *t*<sup>5</sup>, and the lever arm *t*<sup>6</sup>, loosely hung thereon, the eccentric straps, and the eccentric rods connected to the arms *t*<sup>4</sup> and *t*<sup>5</sup>, the said arms *t*<sup>4</sup> and *t*<sup>5</sup> having engagements with the said exhaust valve stems, substantially as described. 10th. In a motor of the character described, the combination with the pair of cylinders and an exhaust passage for each having valves and springs applied for maintaining them normally closed, of the gear-wheel *s*, on the motor shaft and the gear-wheel *s*<sup>2</sup>, which is of double the diameter of said gear *s*, in mesh therewith and having the two eccentrics mounted revolubly thereon and each provided with an arc-formed slot *r*, the bolt or studs mounted upon the said gear-wheel and protruding through the said slots in the eccentrics and having the nuts *r*<sup>2</sup>, all whereby the eccentrics may be adjusted relative to each other and with relation to the crank shaft, substantially as described. 11th. In a motor of the character described, the combination with cylinders and pistons and provisions for introducing an explosive gas into the cylinder chamber behind the piston, of a circuit having a circuit-breaking spark producing device located in the gas chamber at the rear of the piston and a switch for opening the circuit independently of said spark-producing device, lubricators for oiling the cylinders having valves or plugs movably arranged for closing its outlet and a connection between said valves and the switch whereby when the switch is closed the lubricator valves will be opened and *vice versa*, substantially as described. 12th. In a motor of the character described, the combination with the circuit which comprises the circuit-breaking spark-producing device, and a switch for independently opening the circuit, the same comprising the bar *x*, of the lubricators having egress passages and each with a shaft *Q*<sup>1</sup>, provided with a spring for forcing it closed and each shaft having a lever arm *w*, to which said bar *x* is connected, and a cam *r*, which so co-operates with the hubs of the arms *w* as the latter are swung, as to cause, in conjunction with their swinging movements, also outward movements thereof in the direction of the axis of the shaft, substantially as and for the purpose set forth.

**No. 52,950. Advertising and Educational Systems by Coin-controlled Apparatus.** (*Système d'annoncer et d'instruire au moyen d'un appareil contrôlé par une pièce de monnaie.*)

James Solomon Barcus, Chicago, Illinois, U.S.A., 18th July, 1896; 6 years. (Filed 29th April, 1896.)

*Claim.*—1st. In a coin-controlled apparatus, the combination of a locking and releasing device, a feeding or supply device, which is held against movement until the locking and releasing device is moved by the pressure of a coin while passing by the same, means for forcing the coin against the locking and releasing device, means for operating the feeding or supply device after its release, and mechanism operating automatically to relock the locking and releasing device, substantially as described. 2nd. In a coin-controlled apparatus, the combination of a locking and releasing device, a feeding or supply device which is held against movement by a detent until the locking and releasing device is initially moved by the passage of a releasing device a further movement than that given it by the coin, thereby to remove the detent free of the feeding or supply device to permit of its operation, substantially as described. 3rd. In a coin-controlled apparatus, the combination of a latch, a roller held against rotation by a detent until the latch is initially moved by the passage of a coin entering the apparatus, a coin-receptacle having its upper end normally closed by the latch, and means for giving the latch a further movement than that given it by the coin, thereby to release the roller and at the same time deposit the coin within the receptacle, substantially as described. 4th. In a coin-

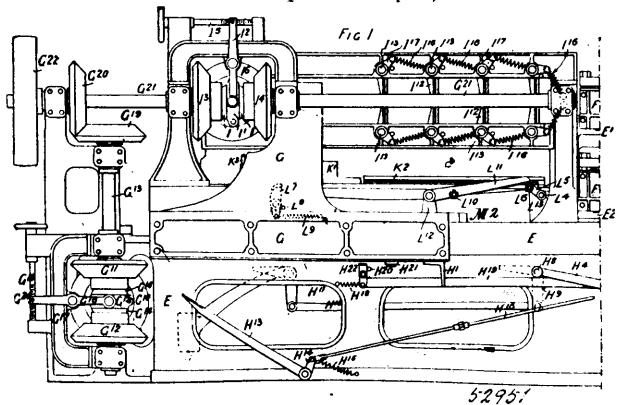
controlled apparatus, the combination with a device for directing the coin to its operative position, of a plunger for pressing the coin



downward, a latch moved by the coin in this act, a roller restrained against turning by a detent on the latch before the same is moved, and a cam by which the latch is given a further movement than that given it by the coin, substantially as described. 5th. In a coin-controlled apparatus, the combination with a device for directing a coin to its operative position, of a plunger for pressing the coin downward, a latch moved by the coin in this act, a roller restrained against turning by a detent on the latch before the same is moved, a cam by which the latch is given a further movement than that given it by the coin, and a receptacle for receiving the coin when dropped by the plunger, substantially as described. 6th. In a coin-controlled apparatus, the combination with a device for directing the coin to its operative position, of a plunger for pressing the coin downward, a latch moved by the coin in this act, a roller restrained against turning by a detent on the latch, before the same is moved, a cam by which the latch is given a further movement than that given it by the coin, and a device by which printed, written, or other matter is brought into view upon turning of a roller, substantially as described. 7th. In a coin-controlled apparatus, the combination with the closed coin receptacle having an open bottom, and a cut in its wall at its lower end, of a slide bearing a spring provided with a disc, the slide covering the opening only when in position in the receptacle, and the disc taking against the cut and preventing the bottom being opened until the spring is depressed, substantially as described. 8th. In a coin-controlled apparatus, the combination with the coin-receptacle having an open bottom, of the slide, the spring, the spring-retracted rod and arm for pressing the coin downward upon the spring and releasing the slide so that the same can be opened after the requisite amount of coin has been placed in the receptacle, substantially as set forth. 9th. A coin-receptacle having a bottom capable of vertical and lateral movement, means for pressing the bottom upward into the receptacle, and independent means for depressing the bottom through the medium of the interposed coin, substantially as described.

**No. 52,951. Multiple Drilling Machine.**

(*Machine à percer multiple.*)

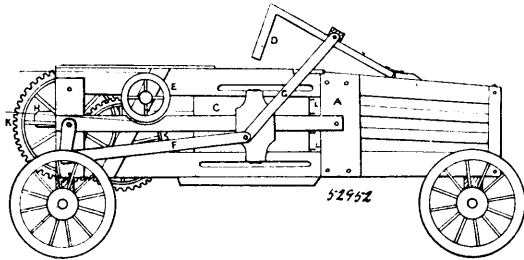


Victor Jetty and Gustave Jetty, London, Middlesex, England, 18th July, 1896; 6 years. (Filed 26th October, 1895.)

*Claim.*—1st. A combined machine for drilling holes and for driving rods into such holes drilled, and for glueing or not glueing such holes and rods before being driven into the holes, consisting of a frame *E*,

on which is mounted a sliding carriage G, carrying drills I<sup>11</sup> mounted in steadying blocks I<sup>12</sup>, and rams K<sup>1</sup> operating in guide tubes K<sup>2</sup> for the rods, means for revolving the drills and causing the carriage G, to move backwards and forwards on the frame E, platforms E<sup>1</sup>, E<sup>2</sup>, for carrying the work to be operated upon, means for glueing the rods and for squirting glue into the holes made and gear for causing the carriage to stop automatically at the end of its travels, substantially as described and shown. 2nd. A combined machine for drilling holes and for driving rods into such holes drilled, consisting of a frame E, on which the work is mounted in the middle, and a sliding carriage G, carrying at one end the drills I<sup>11</sup>, mounted in steadying blocks I<sup>12</sup>, and at the other end rams K<sup>1</sup>, operating in guide tubes K<sup>2</sup> for the rods, and means for revolving the drills, and causing the carriage which carries them and the rams K<sup>1</sup>, to move backwards and forwards on the frame E, and gear for causing the carriage to stop automatically at the end of its travels, substantially as described and shown. 3rd. A combined machine for drilling holes and for driving rods into such holes drilled, consisting of a frame E, on which is mounted at one end a number of drills I<sup>11</sup>, also mounted in steadying blocks I<sup>12</sup>, and on which is mounted at the other end a number of rams K<sup>1</sup>, operating the rods which are guided by means of steadying blocks K<sup>2</sup>, and means for revolving the drills and causing the carriage which carries the work to move backwards and forwards, and gear for causing the carriage to stop automatically at the end of its travels, substantially as described and shown. 4th. A combined machine for drilling holes and for driving rods into such holes drilled, consisting of a frame E, which carries the work to be operated on, and on which frame are mounted a number of drills I<sup>11</sup>, running in steadying tubes I<sup>12</sup>, and a number of rams K<sup>1</sup>, working in steadying tubes K<sup>2</sup>, and means for revolving the drills, and causing them and the rams to move up and down, and gear for causing the drills and arms to stop automatically at the end of their travels, substantially as described and shown.

**No. 52,952. Hay Press Machine. (Presse à foin.)**

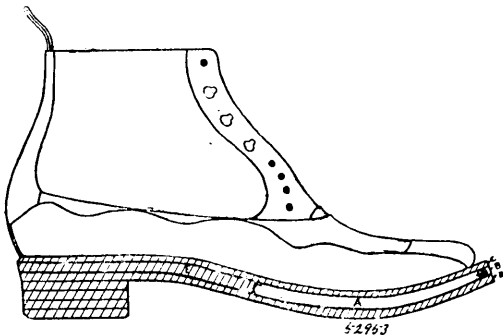


David Pounder, Westmeath, Ontario, Canada, 18th July, 1896; 6 years. (Filed 30th May, 1896.)

*Claim.*—In a hay press frame A, tramper D, bunter B, discharger C, grooved wheel E, with chain, rope or belt connections, shafts F, G and H and blades L, L, all arranged and combined substantially as and for the purpose hereinbefore set forth.

**No. 52,953. Soles of Boots and Shoes.**

(Semelle de chaussures.)



Peter Norman Nissen, Kingston, Ontario, Canada, 18th July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—The combination in the sole of a boot or shoe of rubber bag A, with valve B attached, substantially as and for the purpose hereinbefore set forth.

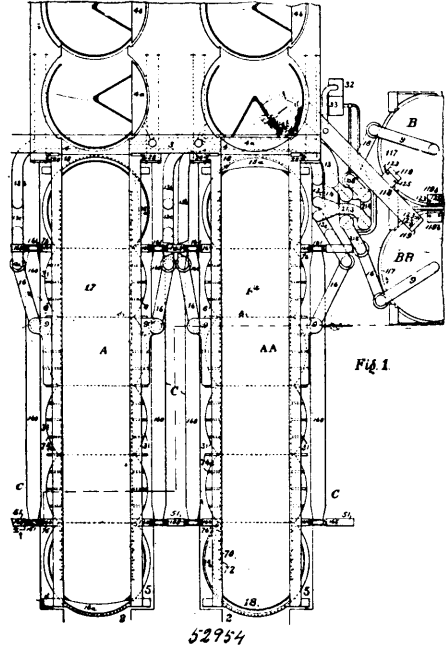
**No. 52,954. Locking System.**

(Système de passage des vaisseaux dans les écluses.)

Chauncey Noble Dutton, New York, State of New York, U.S.A., 18th July, 1896; 18 years. (Filed 22nd April, 1896.)

*Claim.*—1st. In a balance lock system for waterways, the combination of a movable member provided with a lock chamber and a downwardly-opening air chamber with its lower walls sealed in the

water of the lower level of the waterway, and which is connected by a conduit with a source of compressed air, and an auxiliary



apparatus automatically controlling the motion thereof, substantially as set forth. 2nd. In a balance lock system for waterways, the combination of a movable member having a grated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level of the waterway, a second movable member having a downwardly-opening air chamber with its lower walls similarly sealed, a conduit connecting the air chambers of the said members, and an auxiliary apparatus automatically controlling the locking members, substantially as set forth. 3rd. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable member provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level of the waterway, a second movable member provided with a downwardly-opening air chamber with its lower walls similarly sealed, a conduit connecting the air chambers of the two members, and an auxiliary apparatus automatically controlling the locking members, substantially as set forth. 4th. In a balance lock system for waterways, the combination of a structure retaining water at a desired upper level in a section of a waterway, a gated mouth therein, a movable member provided with a gated lock chamber, and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level of the waterway, guides retaining the said member laterally, a second movable member provided with a downwardly-opening air chamber with its lower walls similarly sealed, a conduit connecting the air chambers of the two members, and an auxiliary apparatus automatically controlling the locking members, substantially as set forth. 5th. In a balance lock system for waterways, the combination of a movable member provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level of the waterway, a second movable member with a downwardly-opening air chamber and its lower walls similarly sealed, a conduit connecting the air chambers of the two members, the second member inducing a practically uniform pressure upon the air charge, which pressure is not sufficient to balance the first named member when loaded, and an automatically controlling apparatus connected with the first named member, substantially as set forth. 6th. In a balance lock system for waterways, the combination with waterway sections, located at higher and lower levels respectively, of a structure retaining the upper level, a gated mouth therein, a movable member adjacent thereto, interlocking parallel guides on said structure and on the movable member, a gated lock chamber and a downwardly-opening air chamber provided in the movable member, said air chamber having its lower walls sealed in the water of the lower level, a second movable member provided with a downwardly-opening air chamber with similarly sealed lower walls, a conduit connecting the air chambers of the two members, and auxiliary apparatus automatically controlling apparatus connected with the first named member, substantially as set forth. 7th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable member adjacent thereto, and provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a second and similarly constructed movable member

located adjacent to a structure retaining a higher level in the waterway, a conduit connecting the air chambers thereof, and auxiliary automatically controlling apparatus, substantially as set forth. 8th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable member adjacent thereto provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a second and similarly constructed movable member located adjacent to a structure retaining water at a desired level of the waterway, and a balance member with a downwardly-opening air chamber with its lower walls similarly sealed, conduits connecting the air chambers of the several members, and an auxiliary automatically controlling apparatus, substantially as set forth. 9th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable member provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a second and similarly constructed movable member located adjacent to a structure retaining water at a desired level of the waterway, a movable balance member with a downwardly-opening air chamber and similarly sealed lower walls, a conduit or conduits connecting the air chambers of the movable members, the balance member being adapted to induce a practically uniform pressure in the air charge not sufficient to balance the loaded movable lock members first described, and automatically controlling apparatus connected with the movable lock members, substantially as set forth. 10th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable locking member adjacent thereto, provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, two or more similarly constructed movable locking members each adjacent to a structure retaining water at a desired level of the waterway, a movable balance member with a downwardly-opening air chamber and similarly sealed lower walls, conduits connecting the air chambers of the movable members, and an automatically controlling apparatus, substantially as set forth. 11th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable locking member adjacent thereto, provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, two or more similarly constructed movable locking members, each located adjacent to a structure retaining water at a desired level in the waterway, a movable balance member with a downwardly-opening air chamber and similarly sealed lower walls, conduits connecting the air chambers of the movable members, the balance member being adapted to induce a practically uniform pressure in the air charge not sufficient to balance the loaded movable locking members first described, and automatically controlling apparatus connected with the movable lock members, substantially as set forth. 12th. In a balance lock system for waterways, the combination of a structure retaining water at a desired level in a section of a waterway, and provided with a gated opening, a movable member having a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a conduit connecting said air chamber with a source of compressed air, and a hydraulic apparatus controlling and automatically levelling the movable member, substantially as set forth. 13th. In a balance lock system for waterways, the combination of a structure retaining water at a desired level in a section of a waterway, a gated opening therein, a movable member adjacent thereto and provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a second movable member with a downwardly-opening air chamber and sealed lower walls, a conduit connecting the air chambers of the movable members, a hydraulic apparatus controlling and automatically levelling the movable locking member and connected with a source supplying the said hydraulic members with liquid under pressure, substantially as set forth. 14th. In a balance lock system for waterways, the combination of a structure retaining water at a desired level in a section of a waterway, a gated mouth therein, a movable member adjacent thereto provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a second and similarly constructed movable member adjacent to a structure retaining water at a desired level in the waterway, a conduit connecting the air chambers of the two movable members, a hydraulic controlling and automatically levelling apparatus connected with each of the movable locking members, and a valve-controlled pipe connecting the hydraulic members, substantially as set forth. 15th. In a balance lock system for waterways, the combination of a structure retaining water at a desired level in a section of a waterway, a gated mouth therein, a movable member adjacent thereto provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a second and similarly constructed movable member adjacent to a structure retaining water at a desired level in the waterway, a balance member with downwardly-opening air chamber and sealed lower walls, conduits connecting the air chambers of the movable members, hydraulic controlling and automatically levelling ap-

paratus combined with each of said movable locking members, a pipe connecting the hydraulic apparatus of the two locking members, and a valve controlling said apparatus, substantially as set forth. 16th. In a balance lock system for waterways, the combination of a structure retaining water at a desired level in a section of a waterway, a gated mouth therein, a movable member adjacent thereto provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a series of similarly constructed movable members, each adjacent to a structure retaining water at a desired level in a waterway, conduits connecting the air chambers of the movable members, and hydraulic controlling and automatically levelling apparatus combined with each of the movable members and connected with a source of fluid under pressure, substantially as set forth. 17th. In a balance lock system for waterways, the combination of a structure retaining water at a desired level in a section of a waterway, a gated mouth therein, a movable member adjacent thereto provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a series of similarly constructed movable members each adjacent to a structure retaining water at a desired level in a waterway, a balance member with downwardly-opening air chambers and sealed lower walls, conduits connecting the air chambers of the movable members, and hydraulic controlling and automatically levelling apparatus combined with each of the movable locking members and connected with a source of liquid under pressure, substantially as set forth. 18th. In a balance lock system for waterways, the combination of a movable member provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a conduit connecting the air chamber with a source of compressed air, and a series of synchronized hydraulic members connected with a hydraulic supply and constituting a hydraulic parallel motion apparatus combined with the movable member, substantially as set forth. 19th. In a balance lock system for waterways, the combination of a movable locking member with a multiple member hydraulic parallel motion apparatus, consisting in governed and governing members, the governed and governing members connected together, and the governing member independently connected with a source of power, substantially as set forth. 20th. In a balance lock system for waterways, the combination of two movable locking members each provided with a multiple member hydraulic parallel motion apparatus, consisting in governed members connected with each other, a governing member controlling both sets of governed members, hydraulic pipe connections with a valve controlling the apparatus, substantially as set forth. 21st. In a balance lock system for waterways, the combination of a movable locking member with a multiple member hydraulic parallel motion apparatus, consisting in governed hydraulic members, a governing hydraulic member connected with a positive mechanical apparatus controlling the speed of the parts of the governing hydraulic member, and hydraulic pipe connections, substantially as set forth. 22nd. In a balance lock system for waterways, the combination of a movable locking member with connected hydraulic members, a battery of synchronized pumps and pipes, each connecting one of the pumps with the hydraulic member or members which it synchronizes, substantially as set forth. 23rd. In a balance lock system for waterways, the combination of a movable locking member or members with connected hydraulic members, a battery of synchronized pumps, pipes each connecting one of the pumps with the hydraulic member or members which it synchronizes and a motor controlling the pumps and connected with a source of power, substantially as set forth. 24th. In a balance lock system for waterways, the combination of a movable locking member or members with connected hydraulic members, a battery of synchronized pumps, pipes each connecting one of the pumps with the hydraulic member or members which it synchronizes, and a positive hydraulic motor adapted to actuate and control the pumps and connected with a hydraulic supply, substantially as set forth. 25th. In a balance lock system for waterways, the combination of a movable locking member or members with connected hydraulic members, a battery of pumps all connected with one crank shaft, and pipes, each connecting one of the pumps with the hydraulic member or members which it synchronizes, substantially as set forth. 26th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable locking member provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a conduit connecting the air chamber with a source of compressed air, multiple hydraulic members connected with the movable locking member, a battery of synchronized pumps, and pipes each connecting one of the pumps with the hydraulic member or members which it synchronizes, substantially as set forth. 27th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable member provided with a gated lock chamber and a downwardly-opening air chamber with sealed lower walls, a second movable member with a downwardly-opening air chamber and sealed lower walls, a conduit connecting the air chambers of the two lower members, hydraulic members connected with the movable locking member, a battery of synchronized pumps, pipes each connecting one of the pumps with the

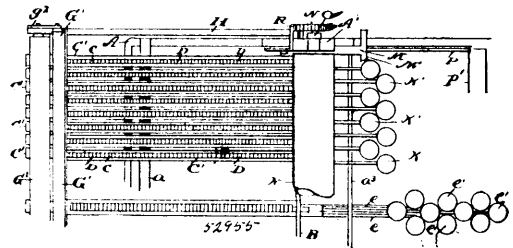
member or members which it synchronizes, and a motor adapted to control the pumps and connected with a source of power, substantially as set forth. 28th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable locking member provided with a gated lock chamber and a downwardly-opening air chamber, a second and similarly constructed movable member adjacent to a structure retaining water at a desired level in a waterway, conduits connecting the air chambers of the movable locking members, hydraulic members connected with each of said members, a battery of synchronized pumps, pipes each connecting one of the pumps with the member or members which it synchronizes, and a valve controlling the hydraulic apparatus, substantially as set forth. 29th. In a balance lock system for waterways, the combination of a structure retaining water at a desired upper level in a section of a waterway, a gated mouth therein, a movable locking member provided with a gated lock chamber and a downwardly-opening air chamber with sealed lower walls, one or more similarly constructed movable locking members, a movable balance member with downwardly-opening air chamber and sealed lower walls, conduits connecting the air chambers of said members, hydraulic members connected with each movable locking member, a battery of synchronized pumps, pipes each connecting one of the pumps with the member or members which it synchronizes, and a motor adapted to control the pumps and connected independently with a source of power, substantially as set forth. 30th. In a balance lock system for waterways, the combination of a structure retaining water at a desired higher level in a section of a waterway, a gated mouth therein, a movable locking member adjacent thereto provided with a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, two or more similarly constructed movable locking members each adjacent to a structure retaining water at a desired level of the waterway, conduits connecting the air chambers of the movable members and a controlling and automatically levelling apparatus, substantially as set forth. 31st. In a balance lock for waterways, the combination of a structure, with gated openings, retaining the higher and a pit formed in the lower level of the waterway, a movable locking member adapted to operate in the pit, and having a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level of the waterway, a charge of compressed air in the said air chambers which when the locking member is elevated renders it superbuoyant and holds it up against stops, stops or anchors which restrain the upward tendency of the locking member when elevated, a second movable member having a downwardly-opening air chamber with sealed lower walls, a valve controlled conduit connecting the air chambers of the movable members, and an auxiliary synchronizing apparatus connected with the locking member, substantially as set forth. 32nd. In a balance lock for waterways, the combination of a structure with gated openings retaining the higher level and a pit formed in the lower level of the waterway, a movable locking member adapted to operate in the pit and having a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level of the waterway, a charge of compressed air in the said air chamber which when the locking member is elevated renders it superbuoyant and holds it up against stops, stops which restrain the movable member when elevated, a second movable member with a downwardly-opening air chamber with sealed lower walls, a valve controlled conduit connecting the air chambers of the movable members, and an auxiliary synchronizing apparatus connected with the movable locking member, and consisting in shafts having pinions which mesh with and roll between vertical parallel racks, substantially as set forth. 33rd. The combination with a movable member adapted to transfer a vessel between a higher and lower level in a waterway, of a synchronizing apparatus consisting in racks attached to the movable member, similar fixed parallel racks upon terra firma, and shafts provided with pinions, the teeth of which engage the racks on the locking member on one side and those on terra firma on the other, and which roll between the racks during the traverse of the locking member, substantially as set forth. 34th. In combination with a synchronized moving member, a synchronizing shaft provided with pinions and rolling between parallel racks with which said pinions mesh, a flexible support passing under the shaft and attached at one end to the movable synchronized member, at the other to a tension apparatus, which takes up the stretch of the flexible support, substantially as set forth. 35th. In a balance lock for waterways, the combination of a structure with gated openings retaining the higher level and a pit formed in the lower level of a waterway, and a movable locking member adapted to operate in the pit adjacent to the said structure and having a gated lock chamber and a downwardly-opening air chamber adapted to retain compressed air by sealing its lower walls in the water of the lower level, a second movable member having a downwardly-opening air chamber with sealed lower walls, a valve controlled air conduit connecting the said air chambers and an auxiliary synchronizing apparatus connected with first named movable member and consisting in shafts provided with pinions, racks on the locking member and parallel fixed racks on terra firma, the teeth of the pinions on the shafts meshing on one side with the racks on the locking member on the other side with the parallel racks on terra firma, and the shafts and pinions rolling between the said racks during the motion of the member, substantially as set forth. 36th.

In a parallel or synchronizing motion for locks, the combination of a hollow shaft with lantern pinions formed thereon, racks on the moving member, and parallel fixed racks on terra firma, the pinions meshing with the parallel racks and rolling between them during the traverse of the moving member, substantially as described. 37th. In a balance lock for waterways, the combination of a structure with gated openings retaining a higher level and a pit formed in the lower level of the waterway, two similar moving locking members adapted to operate in the pit, each having a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a charge of compressed air in the movable locking members adapted to render the locking members superbuoyant when elevated, and hold them at such times up against stops, stops adapted to restrain the locking members when elevated, a valve-controlled conduit or conduits adapted to connect the air chambers of the locking members with one another, and auxiliary synchronizing apparatus connected with each of the locking members, substantially as set forth. 38th. In a balance lock for waterways, the combination of a structure with gated openings retaining a higher level and a pit formed in the lower level of the waterway, two similar movable locking members adapted to operate in the pit, each having a gated lock chamber and a downwardly-opening air chamber with its lower walls sealed in the water of the lower level, a charge of compressed air in the movable locking member adapted to render the locking members superbuoyant when elevated, and hold them at such times up against stops, stops adapted to restrain the locking members when elevated, a valve-controlled conduit or conduits adapted to connect the air chambers of the locking members with one another, and auxiliary synchronizing apparatus connected with the locking members and consisting in shafts at the sides thereof having pinions formed on them and adapted to mesh with and roll in opposite parallel racks on the locking members and fixed on terra firma, substantially as set forth. 39th. In a balance lock for waterways, the combination of a structure with gated openings retaining a higher level and a pit formed in the lower level of the waterway, two similar movable locking members adapted to operate in the pit, each having a gated lock chamber and a downwardly-opening air chamber, with its lower walls sealed in the water of the lower level, a charge of compressed air in the movable locking members, adapted to render them superbuoyant when elevated, and hold them at such times up against stops, stops adapted to restrain the locking members when elevated, auxiliary synchronizing apparatus connected with the locking members, consisting of shafts with pinions thereon, adapted to mesh with and roll between opposite parallel racks on the movable locking members, and fixed on terra firma, valve-controlled conduits adapted to connect the air chambers of the locking members with one another and with the air chambers of pneumatic accumulators, a pneumatic accumulator adapted to connect by a valve-controlled conduit with each of the locking members and having a receptacle on its top for retaining a charge of water, and a valve or weir for discharging the same, and a conduit with a valve or weir adapted to charge the receptacle on the pneumatic accumulator with water, substantially as described. 40th. In combination with pneumatic balance locks and pneumatic accumulators, an air conduit adapted to connect the air chambers thereof, a main valve therein adapted to cut off communication between the air chambers of the locks, and consisting in a return bend, and connected therewith a water supply, and an inlet and exhaust valve adapted to trap and untrap the return bend, a similarly operated four-way compound valve having four separate lower branches or bends, and eight vertical legs, forming four water seal valves separate at the bottom, but which connect at their tops, each leg of one valve with the adjacent leg of two other valves, two air conduits, each connecting one leg of the main valve with one leg of the connected valves, and two air conduits, each connecting one leg of the connected valves with one of the pneumatic accumulators, substantially as set forth. 41st. In combination with a receptacle from which it is desired to control the discharge of water or other liquid, a pneumatic weir having an opening into the receptacle below the water level therein, a branch or channel rising from the opening to a bend, thence descending to a lower bend and ascending to a discharge opening located lower than the water level in the receptacle, an air pipe connecting with a source of compressed air, and an air supply valve connecting with the upper bend, and an exhaust valve connecting therewith, by which means compressed air can be admitted to and exhausted from the said upper bend, substantially as set forth. 42nd. In combination with a receptacle from which it is desired to control the discharge of water or other liquid, a pneumatic weir having an opening into the receptacle below the water level therein, a tube or channel rising from the opening to a bend and thence descending to a lower bend, which is at a lower level than the opening into the receptacle, and thence ascending to a discharge opening, an air pipe connecting with a source of compressed air, and an inlet air valve connecting with the upper bend, and an exhaust air valve connecting therewith, substantially as set forth. 43rd. In combination with a receptacle from which it is desired to control the discharge of water, a pneumatic weir consisting in a channel having a lower opening into the receptacle, thence rising to an upper bend, thence descending to a lower bend and rising thence to a discharge opening, all parts of the channel being below the level of the water in the receptacle, an air pipe and inlet valve connecting a source of compressed air with the upper bend of the channel and an air exhaust valve connected therewith, substantially as set forth. 44th. In combination with a

conduit, a valve case, a gridiron valve seat, a flexible valve adapted to cover the openings in the valve seat, a roller adapted to roll over the gridiron valve seat and deposit thereon and pick up therefrom the flexible valve, substantially as set forth. 45th. In combination with a conduit, a valve case, a gridiron valve seat, a valve formed of a sheet of flexible material, a roller upon which the flexible valve is wound to open the valve, and unwound to close the valve, the roller being adapted to roll over the gridiron valve seat, substantially as set forth. 46th. In combination with a conduit, a valve case, a gridiron valve seat, a flexible valve attached at one edge to the valve body, at the other to a roller adapted to roll over the gridiron valve seat, and mechanism for rolling the valve over the seat, substantially as set forth. 47th. In combination with a valve body, a gridiron valve seat, a flexible valve united at one edge to the valve body, at the other to a roller adapted to roll over the seat, a roller as aforesaid having spur gears which mesh with racks formed on the valve body, and mechanism for rolling the roller over the seat, substantially as set forth. 48th. In combination with a valve body, an inclined gridiron valve seat, a roller adapted to roll over the seat, a flexible valve united at one edge to the valve body, at the other to the roller, and mechanism to roll the roller over the seat, substantially as set forth. 49th. In combination with a valve body, an inclined gridiron valve seat, a roller adapted to roll over the valve seat, a flexible valve united at one end to the valve body, at the other to the roller, a sheave on the roller, a cord attached at one end to the sheave, at the other to a winding drum on which the cord is wound and unwound to roll the roller over the seat, substantially as set forth. 50th. In combination with a valve body, an inclined gridiron valve seat, a flexible valve united at opposite edges to the valve body and to a roller, a roller as aforesaid having gears which mesh with racks on the valve body, sheaves on the roller, a shaft parallel to the roller, winding drums on the shaft, cords united to the roller and to the winding drums on the shaft, and a handle, or mechanism to turn the shaft and operate the roller, substantially as set forth. 51st. In combination with a pneumatic lock, an air conduit, a valve case connected therewith, an inclined gridiron valve seat, a flexible valve, a roller upon which the flexible valve is wound, and from which it is unwound, to open and close the valve; a shaft above the roller, cords connecting the roller with the shaft, mechanism for turning the shaft to wind up the cords and draw up the roller to open the valve, and release mechanism which when operated permits the roller to roll down over the seat and close the valve, substantially as set forth. 52nd. In combination with a movable locking member, a series of adjustable stops adapted to be connected with the movable locking member and adjusted by it all at one and the same time while it is moving, and disconnected from it when the stops are sufficiently adjusted, substantially as set forth. 53rd. In combination with a movable locking member, a series of adjustable stops each consisting in a lever pivoted on a fulcrum, one end of the lever engaging with the lock body to arrest its motion, the other end connected with an adjusting apparatus, a mechanism adapted to connect the adjusting apparatus with the lock body and operate it when the lock is moving, and an independent engaging or clutch apparatus controlled by an operator and adapted to engage the adjusting apparatus with and disengage it from the operating mechanism and the lock body, substantially as set forth. 54th. In combination with a movable locking member, a series of adjustable stops each consisting in a lever pivoted on a fulcrum, one end of the lever adapted to engage the locking member and arrest its motion, bearing blocks at the other end of the lever, a wedge adapted to be moved between them to adjust the position of the lever, a female thread in the wedge, and a threaded shaft engaging therewith, a wheel which meshes with a vertical meshing member on the lock, a clutch adapted to engage and disengage the wheel and the shaft, and an independent mechanism controlled by an operator and adapted to engage and disengage the clutch, substantially as set forth. 55th. The combination with a lock or dock, of a gate having its seating face a surface of revolution about a vertical axis, and being adapted to move horizontally about the said axis, and a concentric seating face on the lock, substantially as set forth. 56th. The combination with a lock or dock, of a gate having its seating face a surface of revolution about a vertical axis, a concentric seating face on the lock, and a positive mechanical guiding apparatus connected with the gate and controlling its motion in a horizontal orbit about the axis of the seating surfaces, substantially as set forth. 57th. The combination with a lock or dock, of a gate having its seating face a surface of revolution about a vertical axis, a concentric seating face on the lock and concentric guiding surfaces on the gate and on the lock which guide the gate in its motion in a horizontal orbit about the common axis, substantially as set forth. 58th. The combination with a lock or dock, of a gate formed with its seating face a surface of revolution about a vertical axis, a concentric seat on the lock, a positive guiding apparatus connected with the gate, and a wheel segment and meshing pinion, one on the lock, the other on the gate, and adapted to move the gate circularly in a horizontal orbit about the common vertical axis, substantially as set forth. 59th. The combination with a lock or dock, of a gate formed with its seating face a surface of revolution about a vertical axis, a concentric seat on the lock, the edges of the seating faces on the lock and on the gate being inclined one to the other, and guiding apparatus connected with the gate and confining it in a horizontal orbit, substantially as set forth. 60th. The combination with a lock or dock, of a

gate formed with its seating face a surface of revolution about a vertical axis, a concentric seating face on the gate, a guiding apparatus confining the gate in an orbital motion about its axis, an air space within the gate adapted to give it buoyancy nearly equal to its weight, and wheels upon which the gate runs, substantially as set forth. 61st. The combination with a lock or dock, of a gate having an orbital motion about a vertical axis, seating faces concentric therewith, wheels set horizontally on the gate, a movable girder adapted to be supported in position across the mouth of the lock, and a tread for the said wheels formed on the said girder concentric with the orbit of the gate, substantially as set forth. 62nd. The combination with a lock or dock, having a segmental recess or pocket in one of its sides, of a segmental gate adapted to move horizontally about a vertical axis and to fit said recess or pocket when opened, substantially as set forth. 63rd. The combination with a lock or dock, having a segmental recess or pocket in one of its sides, of a segmental gate adapted to move horizontally about a vertical axis, and having its front substantially in the form of a quadrant of a cylinder, so as to fit said recess or pocket when opened, without waste of space in, or projecting into the lock chamber, substantially as set forth. 64th. In a lock structure adapted to be manipulated by compressed air, the combination of the members essential to retain the fluids in the manipulation of the locks to form two main structural divisions, an upper division constituting a stiff frame structure adapted to sustain strains arising from external forces, and a lower division suspended from the upper division and adapted to sustain strains due to forces operating within the structure, substantially as set forth. 65th. In a lock structure adapted to be manipulated by compressed air, the combination of two main structural divisions, an upper division constituting a stiff framed structure formed of the members essential to retain the fluids in the manipulation of the locks, and a lower division suspended from the upper division and having its outer walls formed in surfaces of cylinders with vertical axes, substantially as set forth. 66th. In a lock structure adapted to be manipulated by compressed air, the combination of the members essential to retain the fluids in the manipulation of the locks, to form an upper stiff framed division and a lower division suspended from the upper division, and having its outer walls formed in segments of cylinders with nearly vertical axes and transverse tie members, substantially as set forth. 67th. In a lock system adapted to be manipulated by compressed air, the combination of an air main, a trap formed therein, and valve-controlled water supply and waste pipes, substantially as set forth. 68th. In a lock system adapted to be manipulated by compressed air, the combination of an air main, a vertical return bend and valve-controlled water supply and waste pipes, substantially as set forth.

**No. 52,955. Linotype Machine. (Machine linotype.)**

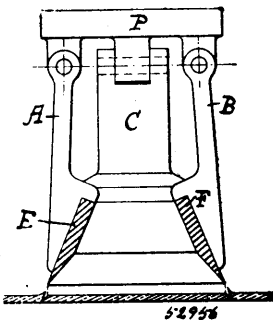


John A. Erksom, Prattsville, New York, U.S.A., 18th July, 1896; 6 years. (Filed 6th May, 1896.)

*Claim.*—1st. In a linotype machine, a series of curved type-bars pivoted upon a frame having adjustable types, means for adjusting the types and a carriage travelling over the type-bars and adapted to engage the adjusted types and move them in line, substantially as specified. 2nd. In a linotype machine, a series of movable bars having adjustable types, means for adjusting the types and a cross-bar travelling over the type-bars and adapted to engage the adjusted types and move them in alignment, substantially as specified. 3rd. A type-bar for linotype machines having recesses therein with inclined side walls and wedge-shaped types in said recesses, substantially as specified. 4th. A type-bar for linotype machines having recesses therein and wedge-shaped types split at one end and located in said recesses, substantially as specified. 5th. In combination with a bar having recesses therein with inclined side walls, of a wedge-shaped type split at its wide end, substantially as specified. 6th. In combination with a bar having a longitudinal series of recesses therein with inclined side walls, of a wedge-shaped type having the character formed on its narrow end and split at its wide end, the split end extending beyond the edge of the bar, substantially as specified. 7th. In a linotype machine, the combination with a series of movable type-bars having adjustable types, of push-bars adapted to engage with one end of the adjustable types, apertured bars for guiding the push-bars and levers pivotally connected to the lower ends of the push-bars and to finger-keys, substantially as specified. 8th. In a linotype machine, the combination with a series of movable type-bars having adjustable types, of push-bars adapted to engage the adjustable types, said push-bars being connected to levers having finger-keys, together with a travelling carri

age adapted to move over the type-bars and engage the adjusted type and move them in alignment, substantially as specified. 9th. In a linotype machine, the combination with a series of movable type-bars having type which are adjustable therein substantially as described, of a carriage for moving the adjusted type in alignment, the carriage consisting of a shaft journalled in bell-crank levers to which operating arms are connected, and a cross-bar connected to the bell-crank levers, substantially as specified. 10th. In a linotype machine, the combination with a series of movable type-bars having type which are adjustable therein substantially as described, of a carriage for moving the adjusted type in alignment, the carriage consisting of a shaft journalled in bell-crank levers to which operating arms are connected, and a cross-bar connected to the bell-crank levers, together with a rock-shaft to which the operating arms are secured, and a lever for rocking the shaft, substantially as specified. 11th. In a linotype machine, the combination with series of movable type-bars carrying adjustable types, means for adjusting the types, and a travelling carriage for moving the adjusted types in alignment, the carriage consisting of a shaft journalled in bell-crank levers, operating arms connected to one end of the bell-crank levers, and a cross-bar connected to the other end, together with a roller located on the shaft of the carriage beneath which the adjusted types pass, substantially as specified.

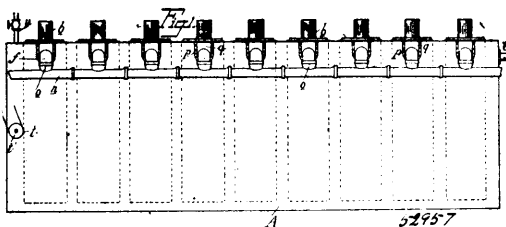
**No. 52,956. Device for Stamping out Cartoons, Cards, and the like. (Appareil pour imprimer des dessins, cartes, etc.)**



Arthur Friedheim, Berlin, Prussia, Germany, 18th July, 1896; 6 years. (Filed 31st October, 1895.)

*Claim.*—1st. A device for stamping out cartoons, cards, etc., with sloping borders, characterized by an up-and-down movable cutter-head P, provided with cutters E, F, suspended on levers A, B, C, D, and having edges sloping inward, so that, when the cutter-head moves downward, the cutters together with the levers move outward as soon as the edges of the cutters meet the cartoon, effecting thus, owing to the position of the edges, an oblique cut on the borders, substantially as set forth and shown in the accompanying drawing. 2nd. A device for stamping out cartoons, cards, etc., with sloping borders, provided with cutters carried in carriages, arranged on the oblique faces of pyramids or prisms, substantially as set forth and shown in the accompanying drawing.

**No. 52,957. Electrolytic Apparatus. (Appareil électrolytique.)**

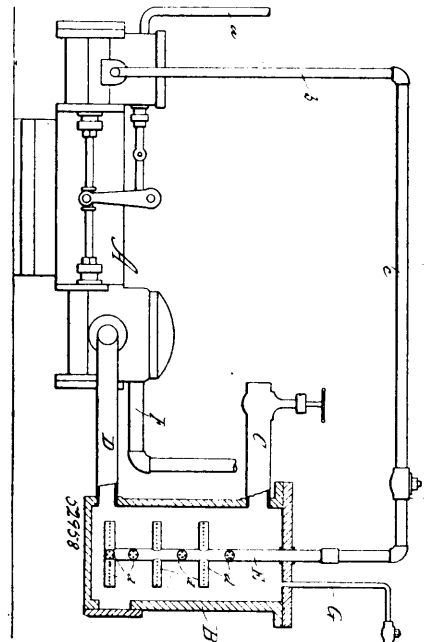


Thomas Crane, Bay City, Michigan, U.S.A., 18th July, 1896; 6 years. (Filed 16th April, 1894.)

*Claim.*—1st. In an electrolytic cell, the combination with the tank forming the cathode compartment of an anode, a vessel enclosing said anode and forming an anode compartment and a cathode forming a cage-like receptacle in which the vessel is enclosed and supported in the tank, substantially as described. 2nd. In an electrolytic cell, the combination with an outer vessel forming the cathode compartment, cathodes therein of a plurality of vessels contained in said outer vessel and constituting the anode compartments, anodes in the same, each inner vessel being enclosed and forming with its anode an independently removable unit, substantially as described. 3rd. In an electrolytic cell, the combination with a plurality of separate vessels forming anode compartments, anodes in the vessels, an outer vessel forming a cathode compartment common to all, and

cathodes in the outer vessel of a partition dividing said vessel into two minor compartments, communicating with each other at the ends of the partition, and a mechanical device for circulating the liquid through the compartments, substantially as described. 4th. In an electrolytic cell, the combination with an outer vessel forming the cathode compartment, of a cell forming an anode compartment and containing an anode, and the metallic cage h constituting a cathode in which the cell is supported, said cage being provided with the flange or ring m, substantially as described. 5th. In an electrolytic cell, the combination with an outer vessel forming the cathode compartment, of separate cells enclosing the anode, each consisting of a perforated cup forming an anode compartment and enclosing an anode, a covering of asbestos around the cup forming a diaphragm, a covering of metallic screen around the asbestos, and a metallic cage enclosing the whole, said screen and cage forming a cathode, substantially as described. 6th. In an electrolytic cell, the combination with an outer vessel forming the cathode compartment, of one or more independently removable cells in said vessel, each containing an anode and forming a separate anode compartment for the liquid to be electrolyzed, a feed pipe into such anode compartment, an overflow pipe extending laterally from such compartment, and the two-part packing box p q through which said overflow pipe passes out through the walls of the outer vessel, substantially as described. 7th. In an electrolytic cell, the combination with an outer vessel forming the cathode compartment, of one or more independently removable cells in said vessel, each forming a separate anode compartment for the liquid to be electrolyzed and containing an anode, a cathode combined with the cell to form an outer enclosing and supporting frame, a feed pipe into the compartment of the cell, a lateral overflow pipe from the cell provided with the downwardly extending elbow, the packing box p q of the overflow pipe and the collecting main n provided with the connection o into which the lateral overflow connects, substantially as described. 8th. In an electrolytic cell, the combination with an outer vessel forming the cathode compartment of a cell, of a partition dividing the same into two compartments, openings formed at the ends of said partition through which the two compartments communicate, a revolving screw wheel in one of the said springs adapted to circulate the liquid through said compartments, and a series of independent cells contained in said compartments, each cell forming a separate anode compartment enclosing an anode and constituting a cathode for the outer vessel, substantially as described. 9th. In an electrolytic cell, an anode compartment composed of a cup c, provided with perforations c', an asbestos covering g, the wire screen h, and a clamping ring m, substantially as described.

**No. 52,958. Appareils pour réchauffer l'eau destiné à l'alimentation des bouilloires. (Appareils for heating water for boilers.)**



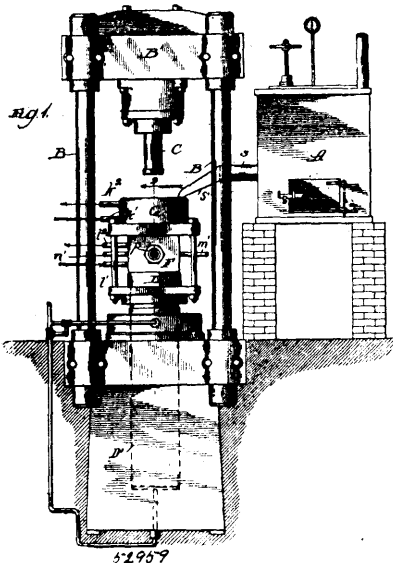
Richard Marchand, Montréal, Québec, Canada, 18 juillet 1896; 6 ans. (Déposé 4 mai 1896.)

*Résumé.*—Un appareil pour réchauffer l'eau avant son entrée dans la pompe d'alimentation B d'une bouilloire, le dit appareil étant constitué par un réservoir B pourvu d'un tube D se reliant au tuyau de section de la pompe; d'un tube C pour amener l'eau dans le dit réservoir, d'un plus petit tube G pour laisser échapper la vapeur qui pourrait se former dans le réservoir dans le cas où l'eau atteint



drait la température d'ébullition; d'un tube central vertical E communiquant avec l'exhaust " de la pompe et de tube horizontaux d percés d'un grand nombre de petits trous pour distribuer dans le réservoir B la vapeur venant de l'exhaust"; ces dernier tubes étant joints au tube vertical, le tout tel que montré au dessin et décrit dans la spécification.

**No. 52,959. Lead Press. (Presse à plomb.)**



Henry Boswell Cobb, Wilmington, Delaware, U.S.A., 20th July, 1896; 6 years. (Filed 18th April, 1896.)

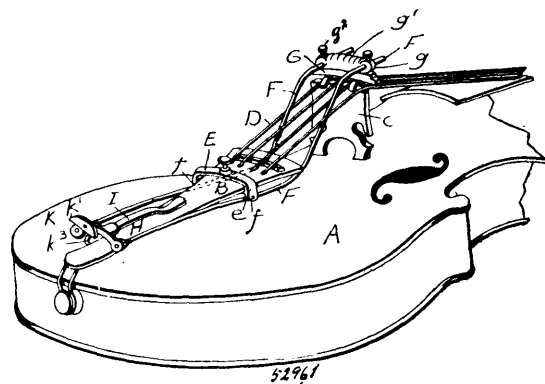
*Claim.*—1st. In a lead press, a die chamber provided with the downwardly inclined inner wall, the female die seated in a sleeve at the discharge end of the die chamber, and a cold water supply channel leading to the circumference of said sleeve, substantially as described. 2nd. In a lead press, a die chamber formed in a block having opposite openings for receiving, respectively, the male and female dies, a sleeve confined in one of said openings, a female die supported in said opening at the inner end of the sleeve, and a cold water supply channel leading through said block and through the wall of said sleeve to the said die, whereby cooling water is directed through the sleeve against the female die and against the manufactured tubing as it emerges therefrom, substantially as described. 3rd. In a lead press, a die chamber having the downwardly inclined inner wall, the sleeve forming said inclined wall, and the core-tube supported in the sleeve to protrude beyond it into the die chamber and to extend closer to the upper than to the lower wall thereof, whereby the greater depth in said chamber is formed below the protruding end of the core tube, substantially as and for the purpose set forth. 4th. In a lead press, a die chamber formed in a block having opposite openings for receiving, respectively, the male and female dies, a sleeve F<sup>2</sup> confined in one of said openings and having a seat at its inner end for the female die and provided with a circumferential channel *o* having openings *o*<sup>1</sup>, the female die seated in said sleeve, and passages *n* and *m*, for the supply and discharge of cooling water, leading through said block, respectively, to and from said circumferential channel, whereby cooling water is directed through the sleeve against the female die and against the manufactured tubing as it emerges therefrom, substantially as described. 5th. In a lead press, the supply chamber comprising a hollow cylinder of metal having the opposite ends of its wall recesses *i* and *j* containing channels *i*<sup>2</sup> and *j*<sup>2</sup> and covered by the caps *h* and *h*<sup>1</sup>, vertical openings *k* in said wall and connected alternately at their opposite ends by said channels, an inlet leading into the convoluted passage formed by said connected openings at the lower end of the supply chamber, and an outlet leading from said passage at the upper end of said supply chamber, substantially as and for the purpose set forth. 6th. In a lead press, having a die chamber containing the core-tube protruding at its inner end beyond the die chamber wall, the combination with the core-tube of a rotatable adjustable sleeve having an eccentric opening and removably seated in the wall of the die chamber, and a female die rotatably seated in the opening in said sleeve and provided with an eccentric opening, substantially as and for the purpose set forth. 7th. In a lead press, having a die chamber containing the core-tube *l* protruding at its inner end beyond the die chamber wall, the combination with the core-tube of a rotatable adjustable sleeve F<sup>2</sup> having an eccentric opening and provided with a seal *g* and a female die K rotatably seated in the opening in said sleeve and provided with an index *g*<sup>1</sup>, substantially as and for the purpose set forth.

**No. 52,960. Chemical Compound to be used for preparing the surface of suitable material for Photographic Purposes. (Composé chimique pour la photographie.)**

Emil Paul Schoenfelder and Emil Kehle, Newark, New Jersey, U.S.A., 20th July, 1896; 6 years. (Filed 13th April, 1896.)

*Claim.*—1st. A chemical composition to be used for preparing the surface of suitable material for photographic purposes, consisting of a chloride of metal of the platinum class, of nitrate of silver or its equivalent, a holding substance, and an organic acid, such as citric acid, substantially as described. 2nd. A chemical composition to be used for preparing the surface of suitable material for photographic prints, consisting of a salt of a metal of the platinum class, of nitrate of silver or its equivalent, a holding substance, such as collodion, an organic acid, such as citric acid and glycerine or its equivalent, substantially as described. 3rd. A chemical composition to be used for preparing the surface of suitable material for photographic prints, consisting of a holding substance, such as collodion, a salt of a metal of the platinum class, of nitrate of silver or its equivalent, a chloride, such as chloride of strontium, a softening ingredient, such as glycerine, an organic acid, such as citric acid, substantially as described.

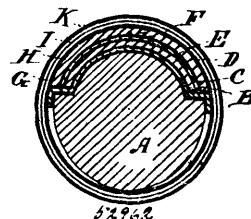
**No. 52,961. Violin-Mute and Mute Operator. (Violon-muet.)**



William Bingham, Philadelphia, Pennsylvania, U.S.A., 20th July, 1896; 6 years. (Filed 11th May, 1896.)

*Claim.*—1st. A violin mute operating attachment comprising substantially parallel rods connected at their rear ends to provide a chin piece, a mute supported by the forward ends thereof and a bracket to transversely bridge the tail piece having depending end lugs for pivotal attachment to the said mute supporting rods, inwardly projecting pins or lugs to press beneath the tail piece and a clamp screw fitted in the bracket to bear upon the top of the tail piece and secure it thereon, substantially as described. 2nd. A violin mute operating attachment comprising a bracket attachable to the tail piece of the instrument, substantially parallel mute supporting spring-actuated rods pivoted upon said bracket and connected to their rear ends by a chin plate, and a rocking latch lever pivoted at said chin plate and adapted to engage therewith or be disengaged therefrom by the chin, substantially as described. 3rd. The combination in a violin mute, of a clip fitted to wedge upon the tail piece forward of its narrowest portion and having elastic ears, a pair of arms having bearings in the said ears of the clip and joined at their rear ends in a return bend and bent upward at their forward ends, a mute fitted to slide closely upon said arms and having one or more feet to engage the violin bridge, an arched chin piece connecting the said arms near their rear end; a lever pivoted upon the return bend of the arms and having a down bend as fulcrum to rest on the tail piece and having cam-shaped terminations to engage the end of tail piece, substantially as described. 4th. In a violin mute, a pair of mute supporting arms pivotally hung midway and connected at their rear ends, an arch-shaped chin piece connecting said arms, and an operating lever, substantially as set forth.

**No. 52,962. Pneumatic Tire. (Bandage pneumatique.)**

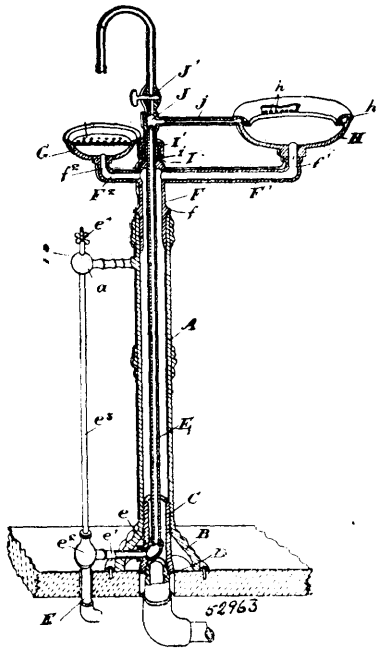


Benjamin Varrick Gintz, Akron, Ohio, U.S.A., 20th July, 1896; 6 years. (Filed 12th May, 1896.)



*Claim.*—The herein described pneumatic tire consists of a continuous tube, G, alternate layers of felt D, F, and duck C, E, having their faces coated with a solution of caoutchouc, ground sponge and flour emery, said strips D, F, C, D, being cemented to the interior tread portion of said tube G, and a rubber strip B, of greater width than the aforesaid strips D, F, C, D cemented to the edges and outermost layers of said strips, D, F, C, D, and to the inner tube G, said tube G, being enclosed by layers of duck, H and I, and outer rubber tube K, all constructed substantially as shown and described.

**No. 52,963. Dental Cuspadore. (Crachoir dentaire.)**



George Booth, Toronto, Ontario, Canada, 20th July, 1896; 6 years. (Filed 15th May, 1896.)

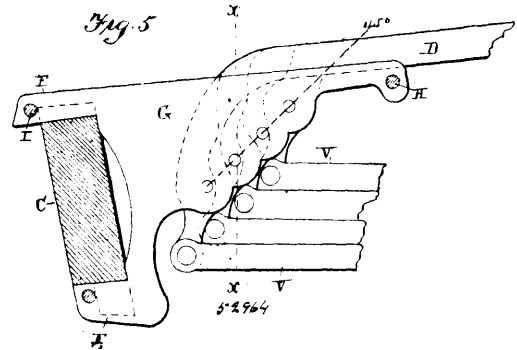
*Claim.*—1st. In a dental cuspadore the combination with the hollow standard forming the waste down pipe, the supply pipe in same, the sleeve having an annular shoulder resting on top of the standard and capable of rotation thereon, the arms F<sup>1</sup>, F<sup>2</sup> with their upwardly extending elbows forming parts of the sleeve, the cuspadore and tumbler supports on the ends of the hollow arms, the branch pipe connected to the top of the supply pipe and extending to the annular perforated chamber at the top of the cuspadore, and the faucet also connected to the top of the supply pipe and designed to be rotated in unison with the branch pipe and arms, as and for the purpose specified. 2nd. In a dental cuspadore in combination the hollow standard supported upon a suitable base and having the waste pipe connected to the bottom of the standard, a sleeve supported on the top of the standard, hollow branch arms attached to or forming part of the sleeve, the tumbler rest and cuspadore supported on the upwardly extending elbows of the arms, the supply pipe extending up through the centre of the standard and having a branch pipe extending from the bottom to the main supply pipe provided with a suitable valve, the cup-shaped recess at the top of the sleeve, the faucet fitting over the top end of the supply pipe, the branch supply pipe leading from the faucet to the basin, the lower end of the faucet being enlarged and fitting within recess around the pipe, a washer beneath the lower end of the faucet and a screw cap holding the sleeve and faucet together, as and for the purpose specified. 3rd. In a dental cuspadore the combination with the standard, sleeve, arms supply pipe and branch pipe and faucet forming a continuation thereof at the top, of a lower branch pipe connecting the bottom of the supply pipe with the main supply pipe, a valve at the joint of juncture, a stem for such valve extending upwardly into proximity with the hollow arms and a bracket for supporting such stem at the top, as and for the purpose specified.

**No. 52,964. Typewriting Machine. (Clavigraphie.)**

James Denny Daugherty, Kittanning, Pennsylvania, U.S.A., 20th July, 1896; 6 years. (Filed 18th May, 1896.)

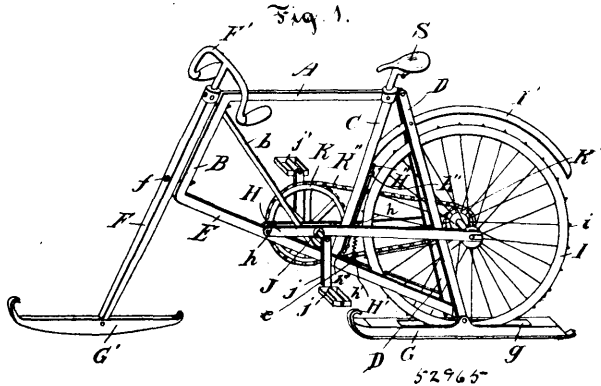
*Claim.*—1st. In a typewriter, the combination of a series of outwardly extending type bars pivoted near their inner ends in the segment of a vertical circle, a series of bell-crank levers all of which are pivoted at points below the lowest type bar of said segment, said bell-crank levers having upwardly extending ends connected with the short ends of the type bars and lower outwardly extending ends

and endwise moving finger keys outside of the type bars, and connected directly to the outer ends of the bell-crank levers, the upper



ends of all of the finger keys being above all of the said bell-crank levers, substantially as described. 2nd. A typewriting machine comprising a series of type bar supporting plates, type bars between two of the plates, the said type bars provided with pivoted points which pass freely through enlarged openings in the adjacent plates and have their ends pivotally supported in distant plates for the purpose of affording a long pivotal bearing. 3rd. A typewriting machine comprising a series of type bar supporting plates or hangers, type bars having their pivotal ends between two of the said plates, and provided with rigid laterally extending pivotal points extending freely by the adjacent plates and pivotally supported in the distant plates, for the purpose of providing a wide pivotal point therefor. 4th. A typewriting machine comprising a curved plate, a series of type bar supporting plates or hangers having one end supported in said curved plate and extending beyond the same, and curved connecting rods extending through the ends of the type bar supporting plates or hangers. 5th. A typewriting machine comprising a platen, a series of type bars pivoted in parallel arcs of vertical circles below the platen, the type bars in the upper arcs being as much shorter than those in the arcs below, as one arc is above the other, whereby the ends of the said type bars are in a line when at rest and strike on the platen at a common point concentric with all of the arcs. 6th. A typewriting machine comprising a platen, a series of type bars pivoted in parallel vertical arcs of circles below the said platen and adapted to strike the side thereof, the said arcs being one above the other and on a line forty-five degrees to a line drawn from the said printing point of the platen, and the bars in the upper arc being as much shorter than those in the adjacent arc below, as one arc is above the other. 7th. A typewriting machine comprising a series of type bars, parallel series of intermediately pivoted levers having upwardly extending ends connected with the short ends of the type bars, finger keys connected to the opposite ends of said levers, and a universal frame having a series of transverse bars extending respectively in rear of the said parallel series of levers and adapted to engage the same when the type bars are operated, for the purpose specified. 8th. A typewriting machine comprising a series of type bars, a series of levers having one end connected with the type bars, finger keys connected with the opposite ends of the said levers, a universal frame having a series of transverse bars extending across and adapted to engage the said levers, the said cross bars being transversely adjustable, for the purpose specified. 9th. A typewriting machine comprising a series of type bars, a series of levers, having one end connected with the type bars, finger keys connected with the opposite ends of the levers, a universal frame having transverse cross bars adapted to engage the levers, the ends of the cross bars having transverse slots, and clamping screws passing through the slots into the frame. 10th. A typewriting machine comprising a series of type bars, a series of levers below the type bars having one end connected therewith, finger keys connected with the opposite end of said levers, and a horizontal endwise moving universal frame having a series of transverse bars in rear of said levers and adapted to be engaged thereby. 11th. A typewriting machine comprising a universal frame consisting of parallel side bars, supporting links connected to the bars, parallel cross bars connected to the said side bars, type bars, finger keys, and connections between the type bars and finger keys adapted to engage the cross bars of the universal frame. 12th. A typewriting machine comprising an endwise moving universal frame, an intermediately pivoted frame carrying at its upper end feed dogs, the lower ends of the said intermediately pivoted frame being connected with the universal frame, whereby when the universal frame moves endwise the upper end of the dog carrying frame is reciprocated, for the purpose shown. 13th. A typewriting machine comprising a series of type bars, a series of intermediately pivoted leaders below the type bars having one end connected therewith, finger keys connected with the opposite ends of said levers, and an endwise moving universal frame engaged by all of said levers. 14th. In a typewriter, the combination of a series of type hanging plates, and a series of type bars having laterally extending pivotal points, the adjacent pivotal points of two bars of the series supported in each plate of the series.

**No. 52,965. Sleigh-Velocipede. (Vélocipède-traineau.)**

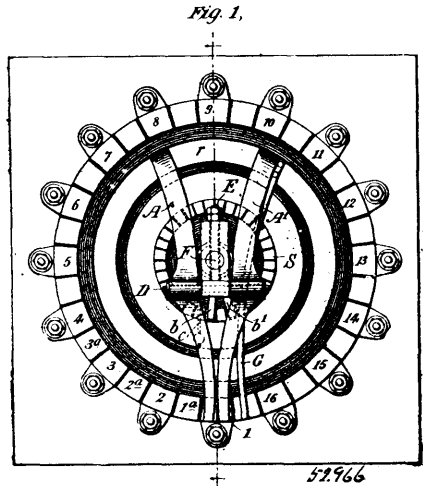


William Gaul Burgess, Three Rivers, Quebec, Canada, 20th July, 1896; 6 years. (Filed 7th December, 1895.)

*Claim.*—1st. In a sleigh-velocipede frame, the combination of a top bar, a forwardly and downwardly sloping front bar rigidly connected to the top bar, an intermediate bar parallel to the front bar and rigidly connected to the rear end of the top bar, a double downwardly, rearwardly and outwardly sloping back bar secured to the junction of the top and intermediate bars, a downwardly and rearwardly sloping bottom bar connecting the lower ends of the front bar intermediate bar and back bar forked to meet the double ends of the latter and a brace extending from the junction of the top and front bar to the bottom bar near the intermediate bar, substantially as set forth. 2nd. In a sleigh-velocipede, the combination of a top bar, a forwardly and downwardly sloping front bar rigidly connected to the top bar, an intermediate bar parallel to the front bar and rigidly connected to the rear end of the top bar, a double downwardly, rearwardly and outwardly sloping back bar secured to the junction of the top and intermediate bars, a downwardly and rearwardly sloping bottom bar connecting the lower ends of the front intermediate and back bars and forked to meet the double ends of the latter, a brace extending from the junction of the top and front bars to the bottom bar and a saddle mounted at the junction of the top bar, intermediate bar and back bar, substantially as set forth. 3rd. In a sleigh-velocipede frame, the combination of a top bar, a forwardly and downwardly sloping front bar rigidly connected to the top bar, an intermediate bar parallel to the front bar and rigidly connected to the rear end of the top bar, a double downwardly, rearwardly and outwardly sloping back bar secured to the junction of the top and intermediate bars, a downwardly and rearwardly sloping bottom bar connecting the lower ends of the front intermediate and back bars and forked to meet the double ends of the latter and a slotted and grooved runner pivotally connected to the lower ends of the back bars, substantially as set forth. 4th. In a sleigh-velocipede frame, the combination of a downwardly and forwardly sloping front bar, secured to the other members of a frame having its lower rear point extending to the ground and its upper part adapted to carry a saddle, of a front leg parallel to said front bar, a runner pivotally connected to the lower end of said leg and its upper end adapted to carry a steering handle, substantially as set forth. 5th. In a sleigh-velocipede, the combination of a suitable frame having rearwardly, downwardly and outwardly sloping back bars and a downwardly and rearwardly sloping bottom bar connecting with the lower ends of said back bars, of double forked horizontal arms pivoted at their forward end to said bottom bar, transverse connecting pieces at intervals and a driving wheel journaled therein at the rear end, substantially as set forth. 6th. In a sleigh-velocipede, the combination of a frame having downwardly, outwardly and rearwardly sloping double back bars and a rearwardly and downwardly sloping bottom bar forked to meet the double ends of the back bars, transversely connected horizontal bars or arms pivoted to said bottom bar and projecting rearwardly, a spiked driving wheel journaled in the rear end of said arms, and an adjustable spring connecting said arms with the bottom bar, substantially as set forth. 7th. In a sleigh-velocipede, the combination of a frame having downwardly, outwardly and rearwardly sloping double back bars, a downwardly and forwardly sloping intermediate bar and a rearwardly and downwardly sloping bottom bar forked to meet the double ends of the back bars, transversely connected horizontal bars or arms pivoted to said bottom bar and projecting rearwardly, a spiked driving wheel journaled in the rear end of said arms, a rod parallel to the intermediate bar secured to said arms and staples or eyes on said intermediate bar in which said rod is adapted to bear, substantially as set forth. 8th. In a sleigh-velocipede, the combination of a frame having a downwardly, outwardly and rearwardly sloping double back bar and downwardly and forwardly sloping intermediate bar and a rearwardly and downwardly sloping bottom bar forked to meet the double ends of the back bars, transversely connected horizontal bars or arms pivoted to said bottom bar and projecting rearwardly, a spiked driving wheel journaled in the rear end of said arms, a sprocket wheel on the hub of said wheel, a crank shaft journaled in said

horizontal arms having double cranks and pedals, a sprocket wheel on said crank shaft, a chain connecting said sprocket wheels, an adjustable spring connection between said arms and bottom bar, a runner on the lower ends of the back bars, and a wheel guard secured to the intermediate bar and back bars, substantially as set forth.

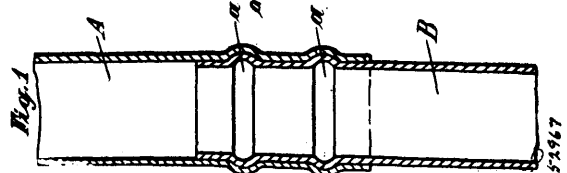
**No. 52,966. Automatic Switch for Storage Batteries, etc. (Commutateur automatique pour batteries secondaires.)**



John Hopkinson, 5 Victoria street, London, England, 20th July, 1896; 6 years. (Filed 17th December, 1895.)

*Claim.*—1st. An automatic battery switch, provided with mechanism for moving it by steps to introduce or take out resistance, a controlling magnet for said mechanism, and electrical connections for automatically altering the current through the magnet after it has acted to reset it. 2nd. A switch provided with a plurality of brushes and contacts, means for producing a definite pressure upon the contacts, and means for equally dividing the pressure among the several surfaces of contact engagement. 3rd. A switch carrying two or more brushes held with definite pressure against co-operating contacts, said brushes being mounted on pivots, giving them freedom of movement in all planes except that of pressure, to produce uniformity of contact. 4th. An automatic switch for secondary batteries provided with a range of contacts connected with the several battery cells, movable brushes for cutting more or less of the battery into circuit, an electro magnet controlled by the potential of one or more cells, a motor controlled by the electro-magnet, and means for limiting the range of travel of the motor so as to produce a definite movement of the brushes. 5th. An electro-magnet having its armature free to move and bearing against three points of rest, of the character described. 6th. In an automatic battery switch, the combination of a main switch for cutting in and out the several cells, and an auxiliary switch controlling the operating mechanism through an electro-magnet which it connects in circuit with one or more of the battery cells. 7th. An automatic switch provided with mechanism for controlling an operating motor for the same, and an electro-magnet controlling said mechanism hanging freely upon a spring or springs. 8th. An electro-magnet having its armature bearing freely upon three points of support, namely, a cone, a slot, and a plane. 9th. In an automatic switch for varying the number of battery cells or amount of resistance in a circuit, the combination of driving mechanism for actuating the switch in either direction, and two electro-magnets actuated by increase or decrease of circuit energy respectively to determine the direction of movement of the switch. 10th. In a regulating device for an electric circuit, the combination of two electro-magnets actuated respectively by an increase or decrease of energy flowing in the circuit, and a supplemental de-energizing coil on one magnet included in the circuit of the other magnet to prevent contradictory actions.

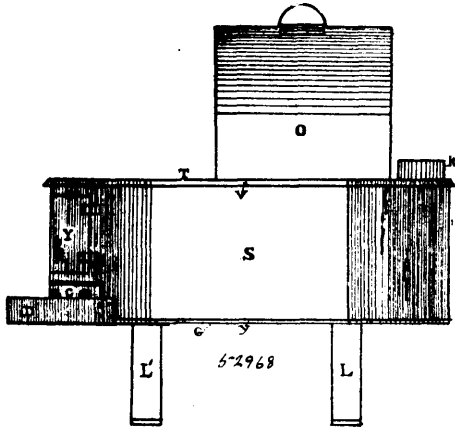
**No. 52,967. Method of and Apparatus for Joining Pipes. (Méthode et appareil pour joindre les tuyaux.)**



Gustav Hoyer, Schonebeck, Prussia, Germany, 20th July, 1896; 6 years. (Filed 29th January, 1896.)

*Claim.*—An apparatus for fastening and joining tubes and the like, consisting of a hollow cylinder D, perforations  $k^1$ , steel balls  $k$ , so arranged within said cylinder as to rotate therein and be guided thereby, a cone  $w$ , projecting within said cylinder and adapted to force the balls outward, a threaded rod  $s$ , having a shank  $d$ , upon which said cone is journaled, a handle for operating said rod, and a handle for operating the cylinder, whereby the balls may be revolved and caused to track after having been forced outward, substantially as and for the purposes set forth.

**No. 52,968. Camp Stove. (Poêle de camp.)**

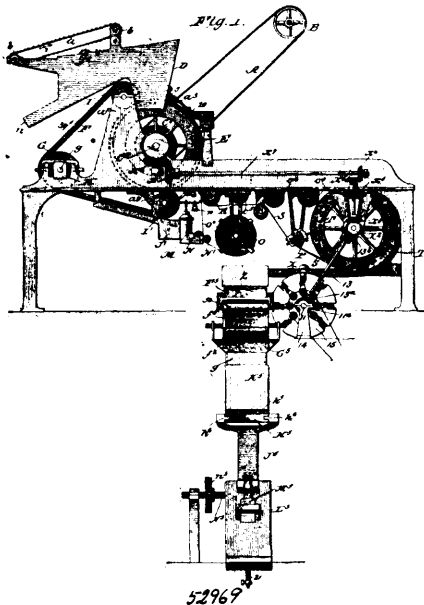


William Johnston, Qu'Appelle, Assiniboia, N.W.T., 20th July, 1896; 6 years. (Filed 7th April, 1896.)

*Claim.*—As an article of manufacture, a camp stove, comprising a perforated cast metal top T, rounded at both ends, and having on the under side a bead or projection Z, the sheet metal double sides and ends, S, S', the sheet metal bottom G, secured to lars terminating in legs L, L', the bolts R, passing through the top and bottom and intervening the sides, one end provided with door Y, damper C, and ash pan D, as set forth, and with or without a removable oven O, and pan P, as described.

**No. 52,969. Cigarette Machine.**

(Machine à cigarettes.)



Edward Randol Colgin, Richmond, Virginia, U.S.A., 20th July, 1896; 6 years. (Filed 9th April, 1896.)

*Claim.*—1st. In a cigarette-making machine, the combination with a filler roll forming mechanism, of endless feed aprons arranged one above the other, an inclined platform disposed under the lower apron, having its discharge end held over the receiving point of the filler forming mechanism, said lower apron being adapted to carry the tobacco up the inclined platform, and a regulating device at the lower end of the lower apron arranged to regulate the feed of the tobacco to the rod forming mechanism, all arranged substantially as

shown and described. 2nd. In a cigarette machine, the combination with the filler forming mechanism, of a feed mechanism comprising an inclined platform having its discharge end held at a point above the receiving point of the filler rod forming mechanism, an endless toothed carrier apron movable over the said platform, a stop member projected up from the platform at the lower end of the apron, and a regulating device consisting of an endless band having its lower end held for adjustment to or from the lower end of the carrier apron, all arranged substantially as shown and described. 3rd. In a cigarette-making machine, in combination with the filler rod forming devices, a feed mechanism comprising a chamber having an inclined platform having its discharge end over the receiving point of the filler rod forming device, an endless toothed carrier belt movable upwardly over the platform and projected beyond the upper end thereof, a rotary brush held to engage the lower face of such projecting portion, and a regulating means at the lower end of such belt, arranged substantially as shown and for the purpose described. 4th. The combination of a filler rod forming wheel having a peripheral groove and also having yielding side walls, and an endless flexible band having its front face arranged to fit in the groove, and means for holding the side walls pressed inward at points where the wheel engages the band as and for the purpose specified. 5th. The combination with suitable tobacco feeding mechanism, of a rotary filler rod forming wheel having a groove and a pair of parallel peripheral flexible flanges, means for distending such flanges at the discharge point of the feed mechanism, and an endless flexible band held to engage the descending face of the wheel flanges and compressing devices engaging such flanges to hold them compressed to their parallel position as they engage the said band, substantially as and for the purpose specified. 6th. In a cigarette-making machine, in combination, a rotary filler rod forming wheel, having flexible peripheral flanges, a flexible endless band to engage one face of such wheel, distending rollers projected between the said flanges at a point in advance of the tobacco receiving point of the wheel, and a series of rollers fixedly held to engage the outer faces of the flanges to hold them compressed, and means for rotating the wheel, substantially as shown and described. 7th. The combination with the endless band and the wheel, of the rod forming mechanism, powder distributing devices located adjacent the band and wheel, arranged to throw the powder onto the said band and wheel, as and for the purpose specified. 8th. In a cigarette-making machine, the combination with a filler rod receiving guide horizontally disposed on the bed of the machine, and a feed chamber having an upwardly-inclined bottom, endless carrier devices adapted to carry the tobacco upon such bottom, and discharge it over the upper end thereof, of a rotary filler wheel having flexible peripheral flanges held directly under the aforesaid discharge, fixed distending members engaging such flanges at a point in advance of the receiving point of the wheel, an endless flexible band engaging the front face of the wheel and extending under the same to the filler rod receiving guide, and means for holding the flanges of the wheel parallel at the points where the band engages the tobacco, as and for the purposes specified. 9th. The combination with the feeding mechanism, of a rotary wheel held under the discharge point of such mechanism, said wheel having parallel flexible peripheral flanges and a continuous groove which receives the loose tobacco from the feed mechanism, fixed rollers held to engage the interior face of the flanges, in advance of the receiving point to distend said flanges, fixed rollers held to engage the exterior face of such flanges on the down-going side, and an endless compressing band which covers the groove of the wheel on the down-going side, all arranged substantially as shown and for the purpose described. 10th. The combination with the feeding devices for advancing the filler rod and the wrapper, such devices including an endless metallic flexible band adapted to turn the wrapper onto the filler and magnets arranged to hold one side of the band down from the filler rod at predetermined points, and means for turning the band over the filler rod, all substantially as shown and described. 11th. The combination of a series of grooved guide rollers, between which the filler rod and the paper ribbon are adapted to pass of a flexible endless metallic band having its edges arranged to alternately lap inward at points between the rollers, devices for holding the opposing edges extended at predetermined intervals and the paste applying means all arranged substantially as shown and described. 12th. In a cigarette-making machine, the combination with a wrapping wheel having a peripheral groove, a series of grooved guide members held on the downgoing side thereof, and a series of vertically disposed guide and folding rollers, having peripheral grooves, of an endless flexible band having metallic edges passed between the several folding rollers, and about the wheel and under the guides held thereover, and the pasting devices, all arranged substantially as shown and for the purposes described. 13th. The combination with the filler rod forming devices and the flexible folding band having perforated metallic edges, the guide and folding rolls, of magnets held to engage one edge of the band and a suction device to engage the opposite edge at predetermined intervals, all substantially as shown and for the purposes described. 14th. The combination with the filler rod forming mechanism, the main frame, the wrapping wheel journaled at one end thereof, said wheel having a series of grooved rollers journaled in the periphery thereof a series of grooved guide and folding members held over the downgoing side of such wheel, of the endless folding band adapted to pass over the aforesaid wheel, guide pulleys for such band, the pasting means, the forming rolls and the magnet and suction devices arran-

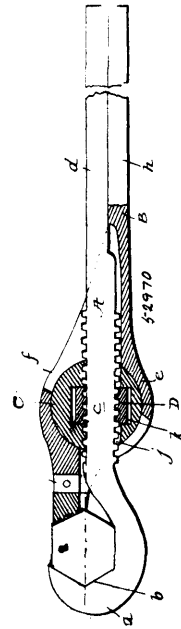
ged as shown and for the purposes described. 15th. In a cigarette machine, the combination with the cigarette rod wrapping and continuous cigarette feeding means, and a guide for the continuous cigarette, of a cutter mechanism comprising a rotary disc carrying cutters held to revolve transversely to the direction of feed of the cigarette, said cutters being normally held below the plane of the cigarette, rod and means for revolving and means for raising such cutter beyond the periphery of the disc as they come directly under the cigarette whereby they will serve to cut such cigarette as set forth. 16th. In a cigarette machine substantially as described, a cutting mechanism comprising a slotted guide for the continuous cigarette, a continuously rotating cutter carrier having a series of radially disposed rotating cutter discs, and mechanism for shifting such discs successively into the path of the continuous cigarette and for rotating the discs, substantially as and for the purposes described. 17th. In a cigarette machine essentially as described, the combination with the continuous cigarette feeding mechanism including the slotted guide X, of cutting devices, comprising a rotating disc having a series of radial notches rotating cutters therein mounted in bearings pivotally joined on the rotary disc, a fixed cam member, disposed under and just in advance of the slot in the guide X, means for rotating the cutters, the said cutter bearings having portions adapted to engage the aforesaid cam whereby such cutters are successively raised, and means for rotating the disc, all arranged substantially as shown and described. 18th. In a cigarette machine substantially as described, a packing mechanism, comprising devices for intermittently dropping one cigarette at a time into the receiver or box, the said box, and means for automatically reciprocating such box in reverse directions as each layer is deposited, substantially as shown and described. 19th. In combination with a vertically movable standard, and a reciprocating carrier, horizontally movable on the standard, of a box held on the carrier and means for intermittently depositing the cigarettes into the box in horizontal layers as the box is reciprocated, substantially as shown and described. 20th. The combination with the standard, means for automatically moving it downwardly, and a reciprocating carrier held on the upper end thereof, of a box held on the carrier, a fixed chute projected therein having a staggered passage-way, and means for intermittently feeding the cigarette into said chute, all arranged substantially as shown and described. 21st. The combination with the reciprocating carrier, and the box held thereon, said carrier being vertically movable, and the vertical chute having a hopper-like upper end, of a rotary cylinder having a series of chambers or pockets, and a feed mechanism operating in connection therewith for delivering the cigarettes one at a time into the pockets of the cylinder, as and for the purpose described. 22nd. The combination with a reciprocating carrier, the box held thereon and the chute, projecting therein, said carrier being vertically movable, of the cylinder held over the chute having a series of pockets or cam portions, of a feed table projected over the cylinder and a swinging cut-off, having a member adapted to project over the end of the said table, said cut-off having a member adapted to be engaged by the cams on the cylinder and be lifted thereby, substantially as and for the purpose described. 23rd. The combination with a receiving box, a chute held to project therein and a cylinder having a series of pockets to each receive a single cigarette, said cylinder having a series of a cam portion, of a feed table projected over the said cylinder, a pivoted pan held at its upper end thereof adapted to receive the cigarette as it passes from the cutting mechanism, a swinging cut-off, connected with the pan, having a member normally projected in front of the discharge end of the table, and having a member held to engage the cams on the cylinder, and arranged thereby to uncover the discharge end of the table and to raise the pan to temporarily hold the next cigarette from passing down the table, as set forth. 24th. The combination in a cigarette machine essentially as described, of a base member, a standard vertically movable thereon, a weighted lever mechanism connected thereto to force it normally upward, a rotary cam mechanism for moving it gradually downward, a carrier held to reciprocate horizontally on the standard, a box carried thereby, and means for feeding the cigarettes singly into the box, all substantially as shown and for the purposes described. 25th. As an improvement in cigarette-making machines in combination, a filler rod forming mechanism, wrapping, folding and pasting devices arranged to receive the filler rod from said mechanism, cutter devices held to engage the complete cigarette as it leaves the wrapping and folding devices, a packing means arranged to lay the cigarettes in uniform rows in the receiving box, a delivery means arranged to receive the cigarettes after they are cut and successively feed them to the said packing means, and gearing mechanism connecting the packing, feeding, wrapping and filler forming mechanism, arranged substantially as shown and described.

**No. 52,970. Pipe Tongs. (Tenailles pour tuyaux.)**

John M. Palmer and William F. Trites, both of Marysville, Montana, U.S.A., 20th July, 1896; 6 years. (Filed 30th May, 1896.)

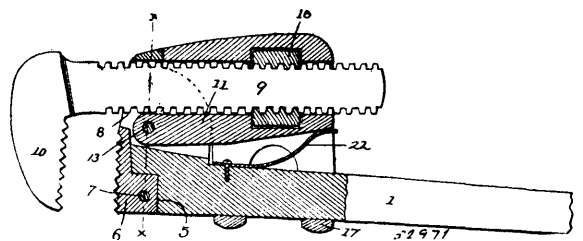
*Claim.*—1st. A pair of tongs comprising a member having a jaw at its forward end and a threaded shank terminating in a handle portion, a second member having a jaw at its forward end and a portion provided with a longitudinally-disposed opening adapted to receive the shank of the other member and transversely disposed circular opening, and also having a handle portion, a circular disk

arranged and adapted to turn in the transverse opening of said second member and having the longitudinally-disposed opening



receiving the shank of the first-named member and also having a transverse opening, and an interiorly-threaded nut arranged in said transverse opening of the disk and receiving and engaging the threaded shank of the first-named member, substantially as and for the purpose specified. 2nd. A pair of tongs comprising a member having a hook jaw at its forward end, the inner face *b* of which is of an angular form, and also having a threaded shank terminating in a handle portion, a second member having a jaw at its forward end and an enlarged portion provided with a longitudinally-disposed opening adapted to receive the shank of the other member, and a transversely-disposed circular opening and also having a handle portion, a circular disk arranged and adapted to turn in the transverse opening of the member B, and having a longitudinally-disposed opening receiving the shank of the first-named member and a transverse opening, and also having its centre arranged in line with the apex of the angular face of the hook jaw and the longitudinal centre of the wrench, and an interiorly-threaded nut arranged in said transverse opening of the disk and receiving and engaging the threaded shank of the first-named member, substantially as and for the purpose set forth. 3rd. A pair of tongs comprising a member A, having the hook jaw *a* at its forward end, the inner engaging face of which is angular and also having a threaded shank terminating in a handle portion, a member B, having a jaw at its forward end and an enlarged portion provided with a longitudinally-disposed opening receiving the shank of member A, and a transversely-disposed circular opening and also having a handle portion, a circular disk arranged and adapted to turn in the transverse opening of the member B, and having a longitudinally-disposed opening receiving the shank of the first-named member and also having a transverse opening, the centre of which is below the centre of the disk, and an interiorly-threaded nut arranged in said transverse opening of the disk and receiving and engaging the threaded shank of the first-named member and having its centre also arranged below that of the disk, all substantially as and for the purpose set forth.

**No. 52,971. Wrench. (Clé à écrou.)**

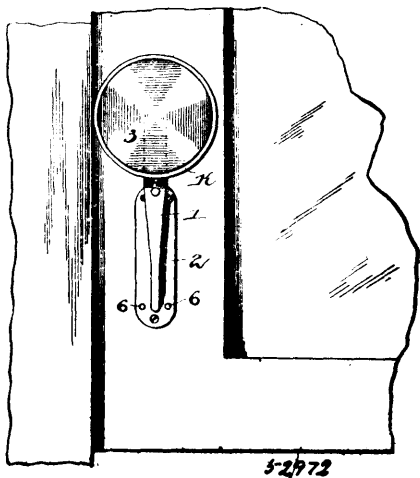


John M. Palmer and William F. Trites, both of Marysville, Montana, U.S.A., 20th July, 1896; 6 years. (Filed 30th May, 1896.)

*Claim.*—1st. A wrench comprising a handle, a head or enlargement at the forward end of the handle, forming a fixed jaw and having a longitudinally disposed opening and also having a bearing surface describing a portion of a circle, a rocking piece having a

curved surface conforming to the bearing surface of the head and also having the forwardly extending arm pivotally connected to the head adjacent to the forward side thereof, and a movable jaw having its shank extended through the longitudinally disposed opening of the head and connected with the rocking piece, substantially as specified. 2nd. A wrench comprising a handle, a head or enlargement at the forward end of the handle forming a fixed jaw and having a longitudinally disposed opening and also having a bearing surface describing a portion of a circle and a stop at one end of such bearing surface, a rocking piece having a curved surface conforming to the bearing surface of the head and a portion adapted to engage the stop thereof and also having the forwardly extending arm pivotally connected to the head adjacent to the forward side thereof, a movable jaw having a threaded shank extending loosely through the longitudinally-disposed opening of the head and also through the rocking piece, a nut carried by the rocking piece and receiving the shank of the movable jaw and a spring interposed between the rocking piece and the handle, substantially as and for the purpose set forth. 3rd. A wrench comprising a handle, a head or enlargement at the forward end of the handle forming a fixed jaw and having a bearing surface on its rear side describing a portion of a circle, a rocking piece having a curved surface conforming to the bearing surface of the head and also having a stirrup loosely receiving the handle, and a forwardly extending arm pivotally connected to the head adjacent to the forward side thereof, and a jaw connected with the rocking piece, substantially as specified. 4th. A wrench comprising a handle, a head or enlargement at the forward end of the handle forming a fixed jaw and having a bearing surface on its rear side describing a portion of a circle, a rocking piece having a curved surface conforming to the bearing surface of the head and also having a stirrup loosely receiving the handle, and a forwardly extending arm pivotally connected to the head adjacent to the forward side thereof, and further having the longitudinally-disposed opening and a transverse opening intersecting the longitudinal opening, a movable jaw having a threaded shank extended through the longitudinal opening of the rocking piece, a nut in the transverse opening of said rocking piece receiving the shank, and a spring interposed between the handle and rocking piece, substantially as specified. 5th. A wrench comprising a handle, a head or enlargement at the forward end of the handle, forming a fixed jaw and having a bearing surface on its rear side describing a portion of a circle, and a stop at one end of said curved bearing surface, and also having a longitudinally disposed opening, a rocking piece having a curved surface conforming to the bearing surface of the head and a portion to engage the stop of the head, and also having a stirrup loosely receiving the handle, and a forwardly extending arm pivotally connected to the head adjacent to the forward side thereof, and further having the longitudinally disposed opening and a transverse opening intersecting the longitudinal opening, a movable jaw having a threaded shank extended through the longitudinal opening of the head and rocking piece, a nut in the transverse opening of said rocking piece receiving the shank, and a spring interposed between the handle and rocking piece, substantially as and for the purpose set forth.

**No. 52,972. Sash Holder. (Arrête-croisée.)**

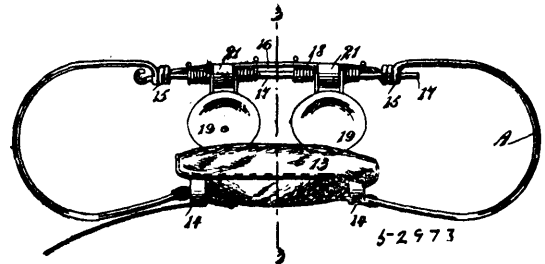


Willard E. Dowling, Mount Pocono, Pennsylvania, U.S.A., 20th July, 1896; 6 years. (Filed 18th April, 1896.)

*Claim.*—1st. A sash balancing attachment comprising a base plate, a lever pivoted to the base plate and adjustably connected therewith at one end, and a spring-actuated drum mounted on the opposite end of said lever and designed to be rotated by friction or other contact with the relatively movable part, substantially as set forth. 2nd. The herein shown and described sash balancing attachment comprising a drum having a centrally disposed aperture boss, and open on the reverse side, a spring located in the drum and having one end

attached to the boss and the opposite end to the inner periphery of the drum, a lever carrying the drum on one end and having its lower portion made flexible, and a base plate having the lever pivoted thereto, and provided with a series of depressions to receive a projection at the free end of the said lever, whereby the latter is held in the located position, substantially as set forth.

**No. 52,973. Truss. (Bandage herniaire.)**



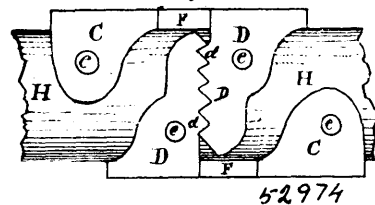
Douglas Reid, New Richmond, Wisconsin, U.S.A., 20th July, 1896; 6 years. (Filed 20th May, 1896.)

*Claim.*—1st. A truss, comprising a band provided between its ends with spaced eyes, a pin or pintle removably held in said eyes, and pads carried by said pin or pintle, substantially as and for the purpose set forth. 2nd. A truss, comprising a metallic band provided with coils, forming eyes, a pin or pintle removably held in said eyes, and pads carried by the pin or pintle, substantially as described. 3rd. A truss, comprising a metallic band provided with coils, a pin or pintle held in the coils, springs on the pintle, and engaging the band and pads carried by the springs, substantially as described. 4th. A truss, comprising a metallic band, provided with a yoke and a coil at each end of the yoke, a pin in the coils, springs coiled around the pin and having one end secured to the yoke, and pads carried by the other ends of the springs, substantially as described. 5th. A truss, comprising a metallic band provided with a yoke and a coil at each end of the yoke, the ends of the band being adjustably connected together, a pad at the rear of the band, a pin held in the said coils, springs coiled on the pin and secured to the yoke of the band, and pads carried by the said springs, substantially as described. 6th. In a truss, a spring band of elongated shape divided at the back and provided at the divisions therein with a device for drawing the extremities together, and a cushion covering the brake, a yoke formed in the front central portion of the band, extending downwardly therefrom, a rod supported at the upper portion of the yoke and substantially constituting a continuation of the band proper, and spring controlled pads supported combinedly by the said band and yoke, the pads having an upward and rearward inclination, as and for the purpose specified.

**No. 52,974. Plumber's Tack.**

(Appareil pour clouer les tuyaux de plomb sur les murs.)

Fig. 3.

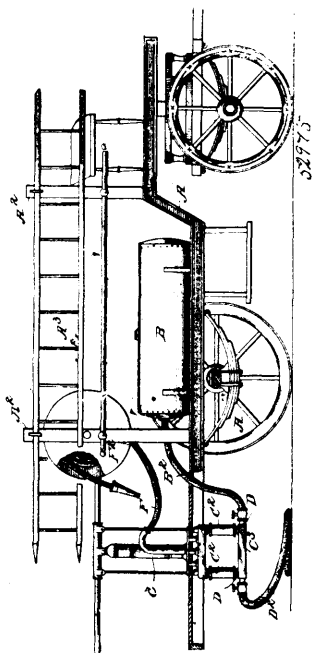


Edward Bookhout, Crawford, New Jersey, U.S.A., 20th July, 1896; 6 years. (Filed 26th May, 1896.)

*Claim.*—1st. In a plumber's tack, the combination of a base plate consisting of two parts adjustable with relation to each other, means for retaining the parts in their adjusted positions, and means attached to each part of the base for clamping the pipe in position. 2nd. A plumber's tack comprising in combination a base plate consisting of two parts adjustable with relation to each other, the co-operating parts of the base being serrated, means for securing the parts in their adjusted positions, and lugs attached to the base plate for securing the pipe in position. 3rd. A plumber's tack comprising in combination a base plate consisting of two parts adjustable with relation to each other, the co-operating edges of the base plates being serrated, means for securing the parts interlocked, and lugs attached to the base plate for securing the pipe in position. 4th. A plumber's tack comprising in combination a base plate consisting of two parts adjustable with relation to each other, means for retaining the parts in their adjusted positions, and lugs attached to each part of the base for clamping the pipe in position, each lug being provided with a recess F through which the base plate of the co-operating parts may project. 5th. A plumber's tack comprising a base plate, one edge of which is serrated, and a lug attached to the base plate to clasp a pipe. 6th. A plumber's tack

comprising in combination a base plate, one edge of which is serrated, a lug attached to the base plate for clamping a pipe, the lug being provided with a recess such as F.

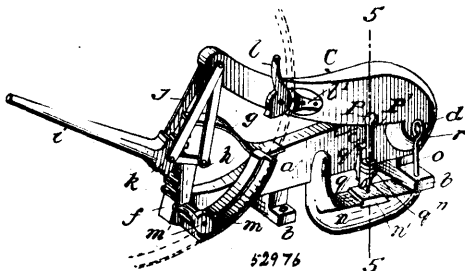
**No. 52,975. Fire Extinguisher. (Extincteur d'incendie.)**



Stephen Banfill, Ayrshire, Iowa, U.S.A., 21st July, 1896; 6 years. (Filed 27th May, 1896.)

*Claim.*—The combination in a fire extinguishing engine comprising a suitable wagon, a tank adapted to contain chemicals mounted thereon, a pump having two independent cylinders, a pump handle fulcrumed between the cylinders, a piston rod pivoted to said handle above each pump and connected with the pump hose, a device connecting the tops of said cylinders, a hose connected with said device, a metal chamber having an opening in each of its upper end portions to admit the lower ends of the cylinders, a screw-threaded projection from each end of the chamber, a hose leading from one end thereof to the aforesaid chemical tank and a hose attached to the remaining end, substantially as and for the purpose stated.

**No. 52,976. Combined Punching, Shearing and Tire up-setting Machine. (Machine à percer couper et poser les bandages.)**



George Sears, Onslow, Iowa, U.S.A., 21st July, 1896; 6 years. (Filed 28th May, 1896.)

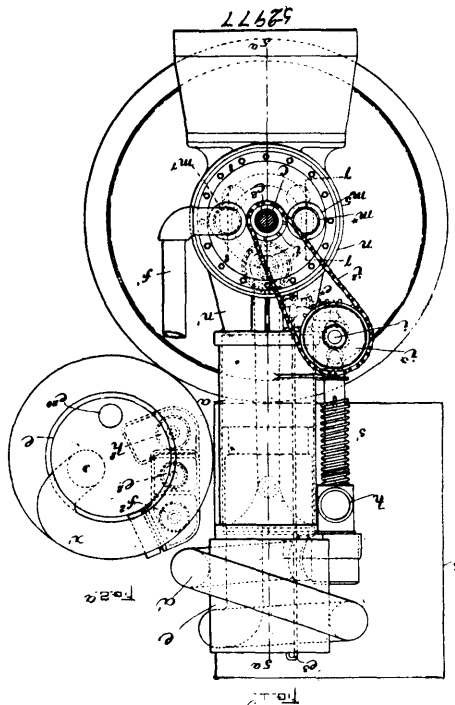
*Claim.*—The power shears comprising the rigid lower jaw, the movable upper jaw pivoted thereto and having operating means, the rigid bracket *n*, depending from the lower jaw and having a die seat, a punch removably carried by the upper jaw above said die seat, a tube *q*, loosely embracing the lower portion of the punch, a perforated block *q'*, therefor, and a strap surrounding said tube and passing through said block and the lower jaw and detachably secured.

**No. 52,977. Oil Engine. (Machine à huile.)**

George John Altham, Swansea, Massachusetts, U.S.A., 21st July, 1896; 6 years. (Filed 29th May, 1896.)

*Claim.*—1st. An engine of the character specified, comprising a cylinder, a piston working therein, and two independent air supplying agencies, communicating with the combustion space, one of

said agencies including a vaporizing chamber, in which the air becomes a part of the working agent, while the other includes first,



a chamber or reservoir for atmospheric air; secondly, means for maintaining an effective pressure of air therein; and thirdly, means for intermittently connecting the said chamber with the combustion space to admit a cleansing blast of air thereto after each working stroke. 2nd. An engine of the character specified, comprising a cylinder, a piston working therein, and two independent air supplying agencies, communicating with the front end of the cylinder, one of said agencies including a vaporizing chamber, in which the air becomes a part of the working agent, while the other includes, first, a valved air supply inlet for the rear end of the cylinder; secondly, an air storage chamber; thirdly, a valved passage connecting the storage chamber with the rear end of the cylinder; fourthly, a valved passage connecting the storage chamber with the combustion space; and fifthly, means for intermittently opening the last mentioned passage to supply a cleansing and cooling blast to the combustion space after each working stroke. 3rd. An engine of the character specified, comprising a cylinder, a piston working therein, an air inlet communicating with the rear end of the cylinder to admit air thereto during each return stroke of the piston, an air storage chamber having an inlet communicating with the rear end of the cylinder, and receiving air therefrom during each forward stroke of the piston, said storage chamber having an air outlet communicating with the combustion space, a rotary valve on the main shaft of the engine controlling the air inlet at the rear end of the cylinder, and the air inlet of the storage chamber, whereby air is permitted to pass from the cylinder to the storage chamber during the forward movement of the piston, and is prevented from returning from the storage chamber to the cylinder, and a valve mechanism operated by said shaft to alternately connect the vaporizing chamber and the air storage chamber with the combustion space, and to open the exhaust during the admission of air to the said space. 4th. An engine of the character specified, comprising a cylinder, a piston therein, a casing below the cylinder surrounding a portion of the main shaft of the engine, said casing being connected with the rear end of the cylinder by a passage which serves to conduct air to and from the rear end of the cylinder, an air storage chamber communicating with the said passage and with the front end of the cylinder, a rotary valve affixed to the main shaft within the casing, an air inlet from the external air to the casing, and an air outlet from said casing to the air chamber, both controlled by said valve. 5th. An engine of the character specified, comprising a cylinder, a piston therein, a casing below the cylinder surrounding a portion of the main shaft of the engine, said casing being connected with the rear end of the cylinder by a passage which serves to conduct air to and from the rear end of the cylinder, an air storage chamber communicating with the said passage and with the combustion space, a rotary valve affixed to the main shaft within said casing, an air inlet from the external air casing, an air outlet from said casing to the air chamber, both controlled by said valve, and spring pressed tubes in said inlet and outlet, bearing against the side of the rotary valve. 6th. An engine of the character specified, comprising a cylinder, a piston therein, a vaporizing chamber having an outlet communicating with the combustion space, a valve controlling said

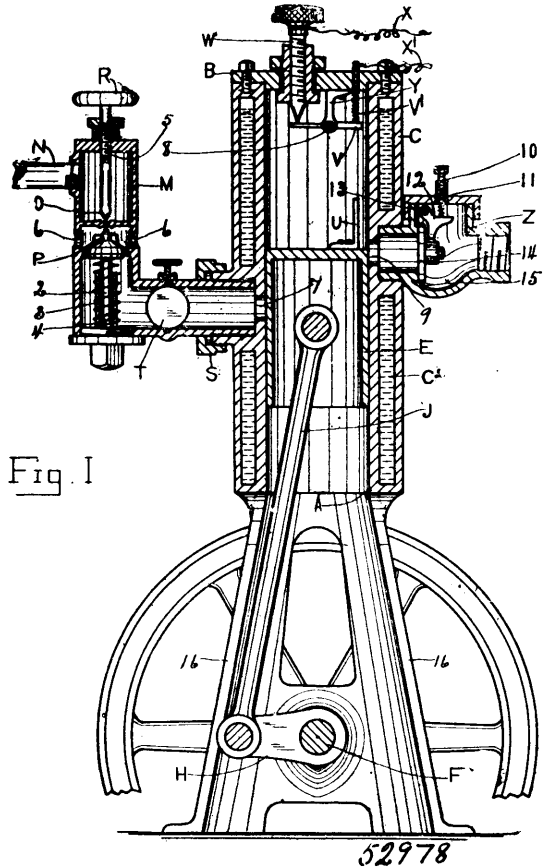
outlet, and an inlet for the admission of air to form a working agent, an air chamber having a passage or outlet communicating with the combustion space and provisions for the alternate maintenance and delivery of an effective combustion space cleansing blast of air, said provisions including first, a valve controlling said air passage, and secondly, positively operating mechanism for opening said valve after each working stroke, holding it open during the following return stroke and closing it during the other strokes of the cycle, an exhaust passage communicating with the front end of the cylinder, a valve controlling said exhaust passage, mechanism for operating the exhaust valve and the working agent valve alternately, the exhaust valve being opened and closed practically in unison with the air valve to permit the cleansing action of the blast of air released by the opening of the air valve, and to close the exhaust during the other strokes of the cycle, while the working agent valve is opened during the forward stroke following the cleansing action, and closed during the other strokes of the cycle to co-operate with the other valves in causing the compression of the working agent by the return stroke following its admission, and thereafter to exclude the working agent from the cylinder, and means for igniting the working agent after its compression, whereby a working stroke is obtained at each alternate forward movement of the piston. 7th. An engine of the character specified, comprising a cylinder, a piston working therein, a vaporizing chamber having an inlet communicating with the external air, and a working agent outlet communicating with the combustion space, an air storage chamber having an inlet communicating with the rear end of the cylinder, and an outlet communicating with the combustion space, an air supply inlet independent of said chamber communicating with the rear end of the cylinder, an exhaust passage communicating with the front end of the cylinder, valve mechanism controlling the inlet to the air chamber from the cylinder and the said supply inlet at the rear end of the cylinder, whereby each forward stroke of the piston is caused to compress the store air in the storage chamber under an effective pressure, valve mechanism controlling the outlet of the storage chamber and organized to release a blast of the compressed air into the combustion space at predetermined periods, valve mechanism for opening and closing the exhaust passage practically in unison with the air chamber outlet, and valve mechanism for opening and closing the working agent outlet alternately with the air chamber outlet whereby the piston is caused at every forward stroke following the cleansing blast, to draw a charge of vapour and air from the vaporizing chamber and to compress said charge at the following return stroke. 8th. The combination of a cylinder, a reciprocating piston therein, a driving shaft, a piston-rod directly connected with the driving shaft, a fly wheel shaft rotatable independently of the driving shaft, and a motion multiplying connection between the piston-rod and fly wheel shaft. 9th. The combination of a cylinder, a reciprocating piston therein, a piston-rod, a tubular driving shaft having a crank connected with the piston-rod, a fly wheel shaft rotatable independently of the driving shaft, a gear affixed to the fly wheel shaft, and a gear affixed to the rod and meshing with the gear of the fly wheel shaft. 10th. An engine of the character specified, comprising a cylinder, a piston therein, an air chamber having an inlet communicating with the rear end of the cylinder, and an outlet communicating with the front end of the cylinder; an independent air supply inlet communicating with the rear end of the cylinder, a rod pivoted to the piston, a driving shaft having a crank connected with said rod, a valve affixed to said shaft and controlling the air inlets of the cylinder and air chamber, a fly wheel shaft rotatable independently of the driving shaft, and intermeshing gears affixed respectively to the rod and fly wheel shaft.

**No. 52,978. Gasoline Engine. (Machine à gazoline.)**

Thomas Reid, Hamilton, Ontario, Canada, 21st July, 1896; 6 years. (Filed 3rd June, 1896.)

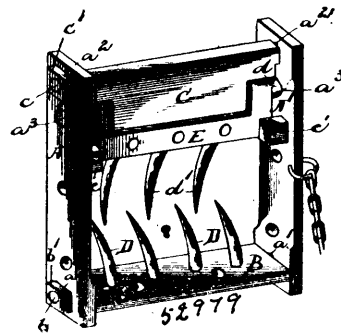
*Claim.*—1st. The combination in an open base gasoline engine of the cylinder having a casing for water, the piston connected to shaft having fly wheels, connecting rod J, and crank H, the connected gasoline chamber M having air ducts and provided with the regulation valves O, and P, and governor valve P, the regulated exhaust valve 14, and the electric spark lever V, operated by arm U, of piston, substantially as described and set forth. 2nd. In a gasoline engine the combination of the cylinder with water casing, the gasoline chamber connected thereto, with regulating needle valve O, a series of air ducts 6, the vapour valve P, the governor valve T, the exhaust port having valve connections regulated by the screw 10, with spiral spring 11, the pivoted lever 12, and the electric spark mechanism, substantially as described and set forth. 3rd. The cylinder as described provided with the gasoline chamber with its valve connected thereto, the regulated exhaust valve and electric spark lever, arm and tension spring in combination with the relief valve in defined position and operated at every up stroke by means of the eccentric 19, on shaft F, and the connecting rod 26, substantially as described and set forth. 4th. The combination of the water pump attached to open base stand, and connected to the water area C<sup>2</sup> of the cylinder formed by casing C, by means of the water inlet pipe 23, the eccentric and its rod 20, plunger 21, the preparation 24, for water outlet pipe, the vertical rod 26, having upper socket 27, having relief valve connecting rod 28, with adjustable collar 29, and tension spring 30, substantially as described and set forth. 5th. In a gasoline open base engine, the combination of

the cylinder having water space connected to pump, with outlet as described, the gasoline chamber with its regulation valves and air



ducts, the regulated exhaust, and the relief valve, all connected to said cylinder provided with piston, connecting rod, crank, fly wheels and shaft in bearings on open base stand of cylinder, substantially as described and set forth.

**No. 52,979. Animal Trap. (Piège.)**



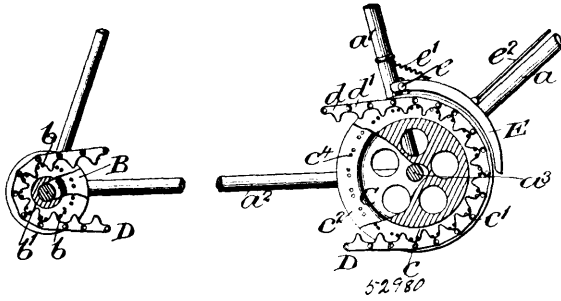
James B. Perkins and Patrick Flannery, both of Lewiston, Idaho, U.S.A., 21st July, 1896; 6 years. (Filed 26th May, 1896.)

*Claim.*—1st. In an animal trap, an open rectangular frame, a series of pointed teeth having a rigid connection with one bar of said frame, and a rocking bar arranged in substantially parallel relation to the bar which has the fixed teeth, said rocking bar being journaled at its opposite ends in the side bars of the frame and provided with a series of pointed teeth, substantially as and for the purpose set forth. 2nd. In an animal trap, an open rectangular frame, in combination with several series of pointed teeth having a fixed relation thereto, and several series of swinging teeth mounted in and carried by a pivoted rocking bar in the manner substantially as specified. 3rd. An animal trap, especially adapted for use in connection with hollow logs and trees, the same consisting of an open rectangular frame, a series of rigidly-attached pointed teeth or fingers projecting inwardly within said open frame, a series of swinging pointed teeth or fingers secured to and carried by a pivoted rocking bar, the side bars of the open rectangular frame being provided with suitable perforations, whereby the trap may



be secured to a hollow log or tree at an aperture made therein, in the manner substantially as described. 4th. In an animal trap, an open rectangular frame comprising the side bars A and A', end bars B and C, and a series of inwardly-projecting rigid teeth secured to one of said end bars, in combination with a rocking bar, a series of inwardly-projecting teeth carried thereby, and one or more stops attached to said rectangular frame, for limiting the outward movement of the rocking bar and its teeth, substantially as and for the purpose specified.

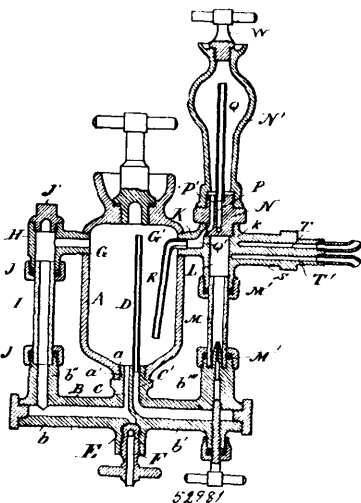
**No. 52,980. Bicycle-driving Mechanism.**  
(*Mécanisme conducteur de bicyclette.*)



Samuel Frank Clouser, Brooklyn, New York, U.S.A., 21st July, 1896; 6 years. (Filed 26th June, 1896.)

*Claim.*—1st. The combination with a sprocket wheel provided with pins spaced apart for the reception between them of teeth on a drive chain, the spaces between the pins being of less width than the extreme width of the teeth and of sufficient depth to leave the points of the teeth free, of a drive chain composed of links having inclined faced teeth constructed to enter and seat snugly between the said bearings, substantially as set forth. 2nd. The combination with a sprocket wheel provided with pins spaced apart for the reception between them of teeth on a drive chain and rollers mounted on the pins, the spaces between the rollers on the pins being of less width than the extreme width of the teeth and of sufficient depth to leave the points of the teeth free, of a drive chain composed of links having inclined faced teeth constructed to enter and seat snugly between the said rollers, substantially as set forth. 3rd. The combination with a sprocket wheel provided with pins arranged in pairs and spaced apart for the reception between them of teeth on a drive chain and rollers mounted on the pins, of a drive chain composed of links having inclined faced teeth constructed to enter and seat snugly between the members of the several pairs of pins, substantially as set forth. 4th. In combination, a sprocket wheel provided with a groove in its periphery of sufficient depth to receive a drive chain below the face of the wheel, a brake mounted in position to swing towards and away from the face of the wheel, the said brake extending in curved form around a portion of the periphery of the wheel and forming at the same time a mud and dust guard, and means for moving the brake towards and away from the periphery of the wheel, substantially as set forth.

**No. 52,981. Sight-Feed Lubricator.** (*Graisneur.*)



James Morison, Toronto, Ontario, Canada, 21st July, 1896; 6 years. (Filed 26th June, 1896.)

*Claim.*—1st. A sight-feed lubricator consisting of an oil cup, a condenser in connection with the oil cup, a steam inlet into the condenser, and an outlet from the condenser into the oil cup, and an

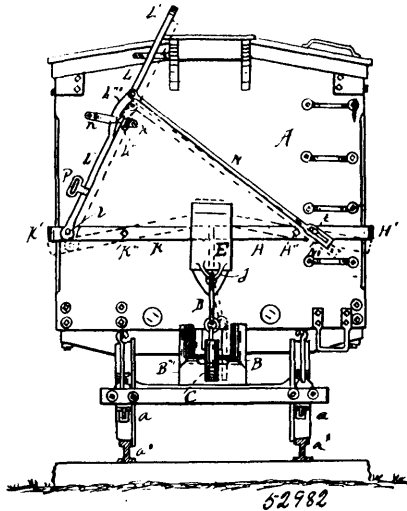
outlet for the oil from the oil cup, substantially as specified. 2nd. A sight-feed lubricator consisting of an oil cup, a condenser connected to the oil cup, a vertical pipe within the condenser, a steam inlet pipe connected to the vertical pipe, and an outlet from the bottom of the condenser into the oil cup, substantially as specified. 3rd. A sight-feed lubricator consisting of an oil cup, a condenser connected to the oil cup, a vertical pipe within the condenser, a steam inlet pipe connected to the vertical pipe, an outlet from the condenser into the oil cup, and an outlet from the oil cup to a feed pipe connected with the steam pipe, substantially as specified. 4th. A sight-feed lubricator consisting of an oil cup, a condenser connected to the oil cup, a vertical pipe within the condenser, a steam inlet pipe connected to the vertical pipe, an outlet from the condenser into the oil cup, an outlet from the oil cup to a feed pipe connected with the steam pipe, and valves to regulate the supply of steam and oil, substantially as specified. 5th. A sight-feed lubricator consisting of an oil cup, a condenser connected to the oil cup, a vertical pipe within the condenser, a steam inlet pipe connected with the vertical pipe, a valve to regulate the volume of steam passing through the inlet pipe, an outlet from the condenser into the oil cup, an opening through the bottom of the oil cup, a vertical pipe connected to the opening extending to approximately the top of the oil cup, a feed pipe connected to the bottom of the said vertical pipe, a sight glass on the feed pipe, an outlet pipe from the feed pipe to the steam pipe, and a valve to regulate the supply of oil through the said outlet pipe, substantially as specified. 6th. A sight-feed lubricator consisting of an oil cup, a horizontal pipe connected to the top of the oil cup, and having an enlargement with a vertical opening therethrough, a condenser fitted into the top of the vertical opening, a plug to close the lower end of the condenser, two passages through the said plug, a vertical pipe fitted to one of the said passages, extending to approximately the top of the condenser, an inlet pipe within the horizontal pipe connected with the opening through the vertical pipe, a valve to regulate the supply of steam through the inlet pipe, an outlet pipe into the oil cup, the other passage into the condenser connected with the said outlet pipe, an opening through the bottom of the condenser, a vertical pipe connected with the said opening, a feed pipe connected to the said vertical pipe, and an outlet pipe for the oil located within the said horizontal pipe, connected with the feed pipe, and a valve to check the flow of oil through the said outlet pipe, substantially as specified. 7th. A sight-feed lubricator consisting of an oil cup, a condenser connected to the oil cup, a vertical pipe within the condenser, a steam inlet pipe connected with the vertical pipe, a valve to regulate the volume of steam passing through the inlet pipe, an outlet from the condenser into the oil cup, an opening through the bottom of the oil cup, a vertical pipe connected to the opening, extending to approximately the top of the oil cup, a feed pipe connected to the bottom of the said vertical pipe, an outlet from the feed pipe to the steam pipe, and a valve to regulate the supply of oil through the said outlet pipe, substantially as specified. 8th. In a sight-feed lubricator, a condenser consisting of a cylinder, a plug to close the lower end of the cylinder, two passages through the said plug, and a vertical pipe connected to one of the passages, extending to approximately the top of the cylinder, substantially as specified. 9th. In a sight-feed lubricator, a pipe to connect the oil cup with the steam pipe, consisting of a horizontal tube fitted into the upper end of the oil cup, an enlargement formed in the said pipe, a vertical passage through the said enlargement, two oppositely opposed valve cases in the enlargement, a steam inlet pipe within the tube connecting with one of the valve cases, and an oil outlet pipe within the said tube connected with the other valve case, and a valve within each of the valve cases to regulate the passage of the fluid through the same, substantially as specified. 10th. In a sight-feed lubricator, a pipe to connect the oil cup with the steam pipe, consisting of a horizontal tube fitted into the upper end of the oil cup, an enlargement formed in the said pipe, a vertical passage through the said enlargement, two oppositely opposed valve cases in the enlargement, a steam inlet pipe within the tube connecting with one of the valve cases, and an oil outlet pipe within the said tube connected with the other valve case, a valve within each of the valve cases to regulate the passage of the fluid through the same, and a drain pipe connected to the said horizontal pipe, and located within the oil cup, substantially as specified.

**No. 52,982. Car Coupler.** (*Attelage de chars.*)

George H. Pacaud, Fall River, Massachusetts, U.S.A., 21st July, 1896; 6 years. (Filed 29th June, 1896.)

*Claim.*—1st. In a freight-car coupler of the character described, the combination of the coupling-hook C adapted to swing from its rear end in the draw-bar, the vertically-sliding frame E connected with and adapted to lift the front end of said hook, a support secured to the end of the car over the draw-bar for said frame to slide on the lifting-bars H, K pivoted to the end of the car and with their inner ends engaging the sliding frame, the bar L extending from the bar K to the top of the car and provided with the recess L'' and shoulder L' whereby said bar can catch and lock under a suitable projection on the car, and the link N extending from the bar L to the lifting-bar H and pivotally secured to both, substantially as described. 2nd. In a freight-car coupler of the character described, the combination of the draw-bar B provided with the recess or socket B' and front wall B'', the coupling-hook C provided with

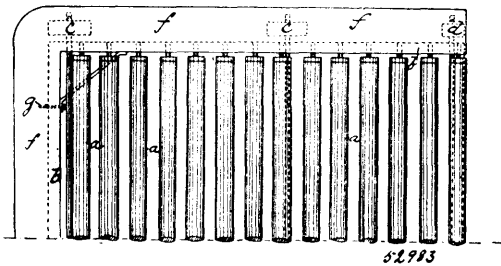
the curved rear end C', the central vertically-sliding frame E connected with the coupling-hook and sustaining it centrally in the



draw-bar and with its front end out of contact therewith, a support secured to the car for said sliding frame, the lifting-bars H, K pivotally secured to the car and engaging the sliding-frame, the bar L extending from one of the lifting-bars to the top of the car, and the link connecting the bar J with the other lifting-bar, substantially as set forth.

**No. 52,983. Stacking Apparatus.**

(Appareil pour mettre le foin en haie.)



Octavus Emil Adolph, Bodal, Denmark, 21st July, 1896; 6 years. (Filed 29th June, 1896.)

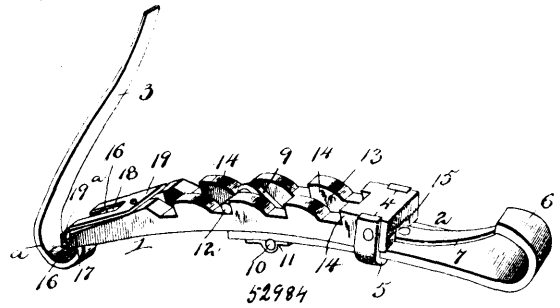
*Claim.*—1st. A stacking apparatus consisting of a carriage having a movable bottom made of a number of rollers fixed in a frame, the said bottom being inclined in itself or arranged in such a manner, that it can be made inclined substantially as described. 2nd. A stacking apparatus consisting of a carriage having a movable bottom constituted by an endless apron of canvas or the like passing over two or more rollers fixed in a frame, the said bottom being inclined in itself or arranged in such a manner, that it can be made inclined substantially as described. 3rd. In a stacking apparatus as indicated in claims 1 and 3, the disposal of a pair of wheels on the back part of the carriage in such a manner, that they do not touch the ground when the carriage is in its normal position, substantially as described. 4th. In a stacking apparatus as indicated in claims 1 and 2, the disposal of the frame carrying the rollers in such a manner, that the frame can be turned round a hinge and its front part be lifted by suitable means, substantially as described. 5th. In a stacking apparatus as indicated in claim 1 or 2, having its movable bottom inclined in itself, the disposal of a stop at the back of the carriage, substantially as described.

**No. 52,984. Hame Fastener. (Couplière d'attelles.)**

John William Stanley, Blue Springs, Missouri, U.S.A., 21st July, 1896; 6 years. (Filed 29th June, 1896.)

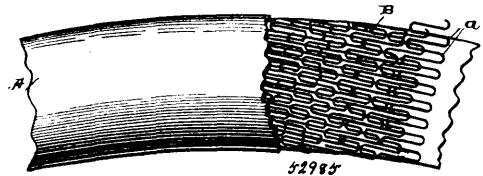
*Claim.*—1st. A hame fastener comprising a longitudinally-slotted body having teeth on one side and having a yoke at one end, a slidable section movable through the yoke and located on that side of slotted body opposite the teeth, an arm pivoted to the inner end of the slidable section and operating through the slot of the body, and having a transverse portion at its free end to engage with the said ratchet-teeth, and a lever to extend over the slotted side of the body and positively secure the free end of the pivoted arm in engagement with any of the said teeth, substantially as described. 2nd. In a hame fastener, the combination with a longitudinally-slotted body having ratchet-teeth on one side, a section having a hook and slid-

ably connected with the said body and arranged to move upon the side opposite that provided with the teeth, and an arm having pivotal



connection at one end with the said section and operating through the longitudinal slot of the body, and having a transverse portion at its free end to engage with any one of the series of ratchet-teeth, of a lever having laterally-extended flattened journals and constructed to project over the toothed side of the slotted body and hold the free end of the pivoted arm in positive engagement with the required ratchet-teeth, and a spring exerting a pressure upon the flattened journals of the lever so as to hold the latter in intimate relation with the slotted body, substantially as set forth. 3rd. In a hame fastener, the combination with a longitudinally-slotted body having ratchet-teeth on one side, and a section slidably connected with the slotted body and having a portion to engage with the said ratchet-teeth, of a lever having flattened journals at one end, and a plate secured at one end to the slotted body and having projecting portions at its opposite end to bear against the said flattened journals to maintain the said lever in closed relation upon the slotted body, substantially as set forth for the purpose described. 4th. The herein shown and described hame fastener, comprising a longitudinally-slotted body having a yoke at one end and formed on one side with a series of ratchet-teeth, a slidable section arranged on that side of the body opposite the teeth and operating through the said yoke, an arm pivoted at one end to the slidable section and operating through the longitudinal slot of the body, and having a transversely-disposed pin at its free end to engage with the said ratchet-teeth, a lever having its inner end curved and formed with laterally-extending flattened journals which are fitted in recesses at the end of the slotted body opposite the yoke, and a plate secured at one end to the slotted body and having its opposite end slotted and formed with lips to engage with and retain the flattened journals in the recesses, and by means of which the said lever is held in closed relation upon the slotted body, substantially as and for the purpose set forth.

**No. 52,985. Rubber Tire. (Bandage en caoutchouc.)**



John Dougan Beebe, Columbus, Ohio, U.S.A., 21st July, 1896; 6 years. (Filed 29th June, 1896.)

*Claim.* 1st. A rubber tire having imbedded therein a light, flat spring formed of lateral deflections and arranged in a plurality of concentric layers one over the other, the deflections of the layers arranged staggering in cross-section of the tire, and each layer separated and supported from its neighbour by interposed rubber, the whole combining to produce a very resilient tire, with a high degree of compressible resistance and a protecting network. 2nd. A rubber tire having imbedded therein a spring formed of parallel convolutions, the said spring being of the same width throughout its entire length and wrapped around several times to secure the required strength of external resistance, the rubber of the tube being between, uniting, separating and supporting the several layers, substantially as described.

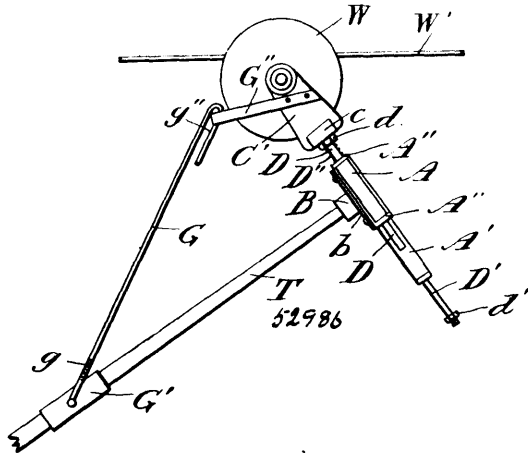
**No. 52,986. Electric Car Trolley.**

(Trolley pour chars électrique.)

William Henderson Russell, Newcastle, New Brunswick, Canada, 21st July, 1896; 6 years. (Filed 18th December, 1895.)

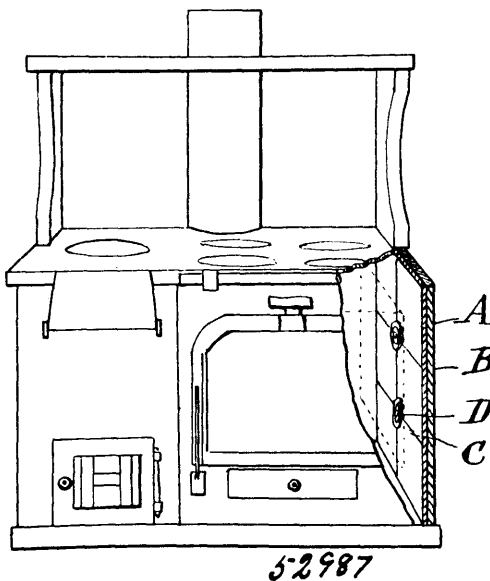
*Claim.*—1st. The combination with the trolley arm of a frame rigidly connected with said arm and consisting of three tubular bearings connected by cross-pieces, a fork consisting of a cross-head having arms or tines in which the wheel is journaled and three slide rods adapted to slide in the tubular bearings, a spring coiled upon the central rod and passing into the central bearing of larger bore and greater length, a collar at the end of said central bearing forming a bearing for the rod and stop for the spring, a trolley wheel journaled in the arms or tines of the fork, a guard rod forked

at one end and hooked sidlingly at the other, a sleeve or clip upon the trolley arm to which the forked end of the guard rod is pivoted,



and a bail rigidly secured to the arms of the wheel bearing passing around the trolley wheel in front and supporting the hooked end of the guard, substantially as set forth. 2nd. The combination with a trolley arm of a frame rigidly connected with said arm and consisting of three tubular bearings connected by cross-pieces, a fork consisting of a cross-head having arms or tines in which the wheel is journaled and three slide rods adapted to slide in the tubular bearings, a spring coiled upon the central rod and passing into the central bearing of larger bore and greater length, a collar at the end of said central bearing forming a bearing for the rod and stop for the spring, and a trolley wheel journaled in the arms or tines of the fork, substantially as set forth. 3rd. The combination of two parallel slide bearings connected by cross-pieces, a spring barrel between said bearings, a hub or socket secured to said barrel and bearings adapted for connection with the trolley arm, a slide rod in the barrel and each side bearing, a cross-head to which said rods are secured and which carries arms for the trolley wheel bearings, a spring coiled upon the slide rod in the central barrel, and a collar at the end of said barrel forming a stop for said spring and a bearing for said slide, substantially as set forth. 4th. The combination of a frame consisting of parallel tubular bearings rigidly connected transversely, a spring barrel between said bearings, means of connecting said frame to the trolley arm, a cross-head having rods slidingly supported in the tubular bearings, a central rod on said cross-head passing into the spring barrel, a spring upon said central rod bearing against a tubular collar at the end of the spring barrel, means of contact with the conductor on said cross-head, a sleeve or clip on the trolley arm, a guard rod pivoted to said sleeve or clip, and means of supporting the upper end of said guard rod in line with the contact piece, substantially as set forth.

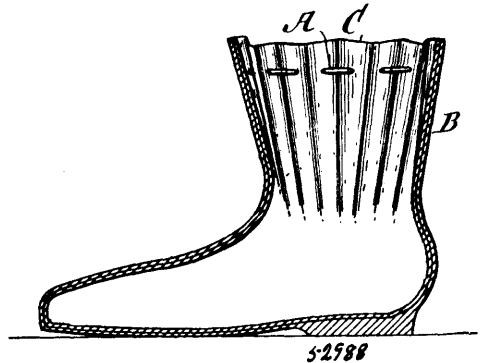
**No. 52,987. Cooking Range and Stove.**  
(*Poêle de cuisine.*)



George Roger Prowse, Montreal, Quebec, Canada, 21st July, 1896; 6 years. (Filed 9th June, 1896.)

*Claim.*—1st. In a cooking range, a lining of porous brick attached to the inner surfaces of the outside walls of the flues. 2nd. In a cooking range, the combination of the porous bricks, the metallic casing of the flues, and means of attaching such porous bricks to the inner sides of the outer portions of such casing. 3rd. In a cooking range, an interior non-conducting lining of porous bricks applied to the metallic walls of the range.

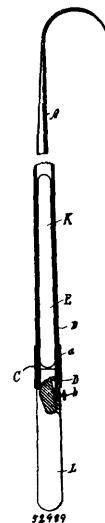
**No. 52,988. Shoe.** (*Chaussure.*)



Susannah Trimble, New York, State of New York, U.S.A., 21st July, 1896; 6 years. (Filed 11th June, 1896.)

*Claim.*—1st. A shoe provided with an upper having the entire circumference of its mouth portion in the form of accordion-like plaits to expand and contract, the said plaits extending downwardly and merging into the flat form of ordinary shoes at the heel portion, substantially as described. 2nd. A shoe provided with an upper having the entire circumference of its mouth portion in the form of accordion-like plaits to expand and contract, the said plaites extending downwardly and merging into the flat form of ordinary shoes at the heel portion, and having an elastic band loosely extending through them, as specified.

**No. 52,989. Combined Whip and Animal Scraper.**  
(*Fouet et grattoir combinés.*)



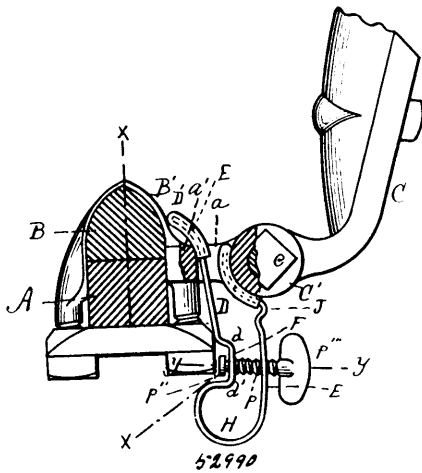
Horace Stokes, Hackettstown, New Jersey, U.S.A., 21st July, 1896; 6 years. (Filed 10th June, 1896.)

*Claim.*—1st. The combination, with a hollow whip butt internally threaded, of an animal scraper provided with a handle and a screw intermediate the handle, and a thread to engage the thread in the butt. 2nd. The combination with a hollow whip butt provided with an intermediate annular groove, of an animal scraper having a push spring intermediate the handle and the blade, and adapted to be connected to the whip butt thereby. 3rd. An animal scraper having a blade and a handle in combination with a hollow whip butt adapted to receive the blade of the scraper within its interior, and means for detachably connecting the handle of the scraper to the whip butt.

**No. 52,990. Anti-rattler for Thill Coupling.**  
(*Tuteur de limonière.*)

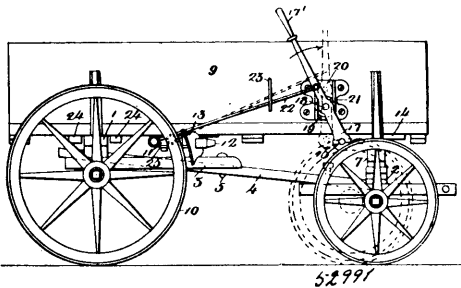
John Willard Willard, Pittsford, Vermont, U.S.A., 21st July, 1896; 6 years. (Filed 5th June, 1896.)

*Claim.*—An anti-rattler for thill couplings, comprising two members, and mechanism extending from one of said members into



engagement with the other and adapted by such engagement to contract or expand the anti-rattler, that is, move the members toward or from each other, substantially as described.

**No. 52,991. Wagon Brake. (Frein de wagon.)**



Albert Powers and Valentine Furstenfeld, St. Louis, Missouri, U.S.A., 21st July, 1896; 6 years. (Filed 10th June, 1896.)

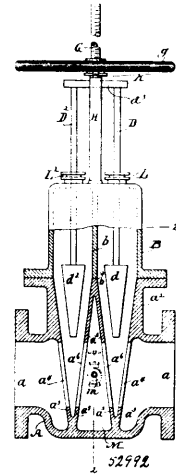
*Claim.* 1st. In a wagon brake, suitable rear and front trucks, a coupling pole connecting said trucks, a slotted connection between said pole and the front truck, a rock-shaft 15, arms 16, 17 for the same, a wagon box 9, guide-ways 20 carried by the wagon box, an extension 17' forming a continuation of the arm 17, suitable brake levers, and a connection between the brake levers and the extension 17', substantially as set forth. 2nd. In a wagon brake, suitable rear and front trucks, a coupling pole connecting said trucks, a slotted connection between said pole and the front truck, a wagon-box 9, bearing plates 14, a rock-shaft 15 mounted on said plates, arms 16, 17, anti-friction rollers carried at the free ends of said arms, guide-plates for the rollers, an extension 17' forming a continuation of the arm 17, brake levers 11, 12, a connecting link 25, and a connecting rod 22, the parts operating substantially as and for the purpose set forth. 3rd. In a wagon brake, suitable rear and front trucks, a coupling pole for the same, a slotted connection between the pole and the front truck, a rock-shaft 15 pivoted to the forward truck, suitable arms 16, 17 carried at each end of the rock-shaft, a wagon box rigidly secured to the rear truck and movably resting on the front truck, guide-ways 20 carried by the wagon box for guiding the free ends of the pivoted arms, suitable brake levers 11, 12 pivoted to the bottom of the wagon box, and connections between the brake levers and the pivoted arms, substantially as set forth.

**No. 52,992. Steam Valve. (Soupape à vapeur.)**

Charles Schneider, New York, State of New York, U.S.A., 21st July, 1896; 6 years. (Filed 12th June, 1896.)

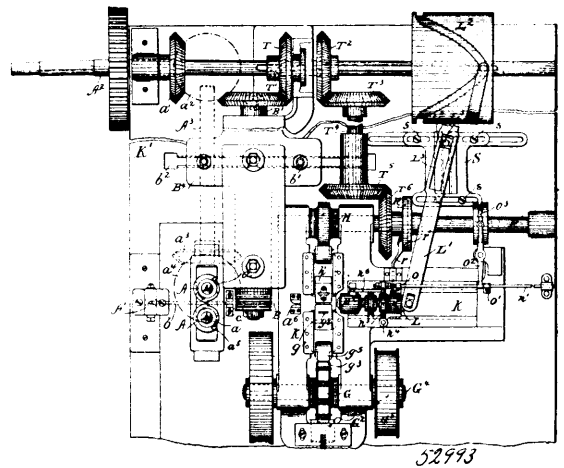
*Claim.*—1st. A steam valve comprising a casing having a channel leading longitudinally therethrough and two valve seats therein and a compartment between the said two valve seats and vertically movable gate valve for engagement with the said seats and means for operating them, and an exhaust valve leading from the said compartment, substantially as shown and described. 2nd. In a steam valve, the combination of a tubular coupling head having tubular extensions at each side thereof, and head having two valve seats therein for engagement with two vertically movable gate-valves, and a compartment between the two said valve seats having an exhaust valve leading therefrom and the two valves having a screw attached thereto for operating them, substantially as shown and described. 3rd. As a steam valve, the combination of the

tubular coupling head A and the tubular extensions a and the partition plates a<sup>2</sup> and the openings a<sup>1</sup> therein, and the tubular exten-



sion a<sup>2</sup> and the partition plates a<sup>2</sup>, and their openings a<sup>1</sup>, and the hollow head B, and the rods D and D<sup>2</sup>, passing therethrough and having gate valves d and d<sup>2</sup> depending therefrom and the screw G and handle g for operating the said valves, and the compartment H, having the valve m leading therefrom, substantially as shown and described.

**No. 52,993. Manufacture of Wire Spokes for Bicycles, etc. (Fabrication de rais en fil de fer pour bicycles.)**

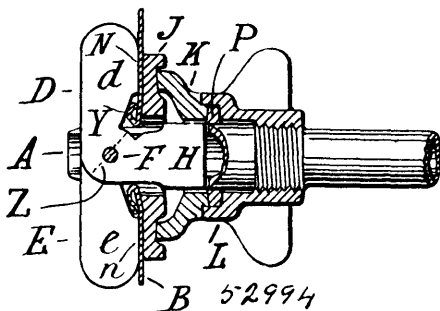


George Joseph Capewell and William George Allen, both of Hartford, Connecticut, U.S.A., 21st July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. In a machine for making wire spokes or similar articles required to have a reduced diameter for a portion of their length, the combination of a pair of flattening rolls having acting surfaces extending a part way round their peripheries, being thereby adapted to act upon a portion only of the wire, and a second pair of rolls having a circular pass, the acting surfaces thereof extending part way around the rolls, for further reducing the flattened portion of the wire, substantially as described. 2nd. In a machine for making wire spokes or similar articles, the combination of a pair of flattening rolls having acting surfaces extending part way round their peripheries, so as to act upon and flatten the wire for a portion only of its length, and a second pair of rolls having each a semi-circular groove extending part way around the roll, for acting upon and reducing to circular cross-section the portion of wire flattened by the first rolls, the axes of the two pairs of rolls being at right angles to each other, substantially as described. 3rd. In a machine for making wire spokes or similar articles, the combination of a pair of rolls having acting surfaces extending part way round their peripheries, so as to act upon and flatten a portion only of the wire passing between them, and a second pair of rolls having each a semicircular groove extending part way round its periphery, the axes of the second rolls being at right angles to the first, and the two pairs of rolls being relatively timed as specified so that the action of one pair of rolls begins after that of the other ends, substantially as described. 4th. The combination of two pairs of rolls acting successively on the wire-stock, said rolls having their peripheries

partly cut away so as to act upon a portion only of the stock, and driving mechanism rotating said rolls in such relation to each other that the acting surfaces of each pair come into operation when the other is out of action, substantially as described. 5th. The combination of two pairs of rolls acting successively on the wire-stock, said rolls having their peripheries partly cut away so as to act upon a portion only of the stock, and being arranged with the axis of one pair at right angles to the axes of the other, and driving mechanism rotating said rolls continuously in such relation to each other that the acting surfaces of each pair come into operation when the other is out of action, substantially as described. 6th. A pair of reducing rolls having acting surfaces extending part way around their peripheries, the rolls having each a removable extension block set into the roll, a portion of the outer surface of the block being coincident with the acting surface and forming part thereof, so that by changing the block the length of acting surface may be varied, substantially as described. 7th. In a wire rolling mill, the combination with a pair of reducing rolls having their peripheries dividing into acting and non-acting surfaces, of removable blocks set into said rolls at the junction of these two surfaces and having a surface coincident with each, substantially as described. 8th. In a wire rolling mill, the combination with a pair of roll shafts, of rolls removably secured on the ends of said shafts and having a series of grooves, said rolls being reversible, and removable spacing washers, between said rolls and shoulders or abutments on said shafts, whereby the rolls may be adjusted to bring any one of the grooves into the line of action, substantially as described. 9th. In a machine for making wire spokes or similar articles, the combination with reducing rolls having acting and non-acting surfaces arranged to act upon a portion of the wire-stock, of a swaging device, feed mechanism for carrying the stock through the swaging device, and actuating mechanism for said rolls and swaging device, substantially as described. 10th. In a machine for making wire spokes or similar articles, the combination of the flattening rolls, the grooved reducing rolls, and the swaging dies, acting successively upon the stock, with feed mechanism for advancing the stock, and actuating mechanism for said rolls and dies, substantially as described. 11th. The combination of the flattening rolls having acting and non-acting surfaces, the grooved reducing rolls having acting and non-acting surfaces, mechanism for driving said rolls in such relation to each other that each pair is acting while the other is out of action, swaging dies receiving the stock from the second pair of rolls, and means for feeding the stock between the dies, substantially as described. 12th. The combination with reducing rolls having part of their peripheries cut away, so as to act upon a portion only of the stock, of swaging dies between which the rolls deliver the stock, means for separating the dies to admit and pass the large end of the stock, feed-mechanism for the stock, and actuating mechanism for the dies, substantially as described. 13th. The combination with the reducing rolls for reducing the shank or intermediate portion of the stock, of a pair of swaging dies, means for automatically adjusting one of the dies to different working positions relatively to the other, so that the dies may be separated to pass the large end of the stock, and brought together again, means for rapidly vibrating the other dies, and mechanism for feeding the stock between the dies, substantially as described. 14th. The combination of pairs of flattening and reducing rolls having acting surfaces extending part way only around their peripheries, said pairs of rolls being relatively adjustable according to the length of spoke to be made, substantially as described. 15th. The combination with pairs of flattening and reducing rolls having acting surfaces extending part way only around their peripheries, of a swaging device adjustable relatively thereto, substantially as described. 16th. In a machine for making wire spokes or similar articles, the combination with flattening rolls, reducing rolls, and a swaging device, all adjustable relatively to each other, the rolls being cut away so as to act upon a portion only of the wire blank, of feeding devices for carrying the stock through the dies, means for imparting the necessary movement to said devices and for adjusting the extent of movement thereof, as and for the purpose set forth.

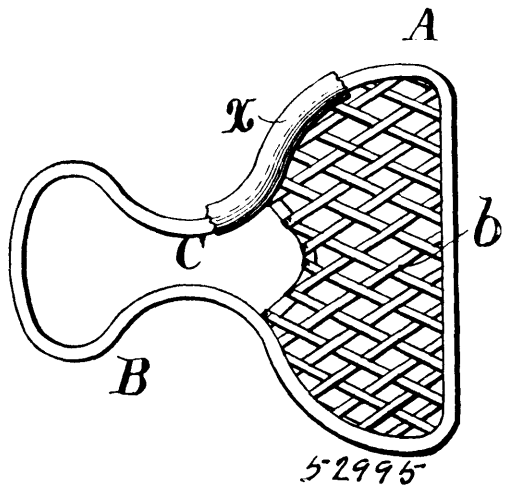
**No. 52,994. Device adapted for Securing Tubes, etc.**  
(Appareil pour assujétir les tubes, etc.)



Friedrich Albrecht, Melbourne, Victoria, Australia, 21st July, 1896; 6 years. (Filed 13th June, 1896.)

*Claim.*—1st. In a connecting device, a tube or rod end having a slot C, in combination with elbow plates pivoted with their elbows within the slot, substantially as and for the purposes set forth. 2nd. In a connecting device, a tube or rod end having a slot C, a shoulder O, a screw threaded portion M, and a plain portion m, between the screw thread and the slot, substantially as and for the purposes set forth. 3rd. In a connecting device, a pivoted elbow plate having its elbow recessed and narrowed to less than the diameter of the hole in the base, substantially as and for the purposes set forth. 4th. In a connecting device, a tube or rod end having one or more elbow plates pivoted thereto, one arm of the, or each, plate being adapted to pass through a base B, and swing on its pivot to bear against one side of the base, the remaining arm lying on the other side of said base, in combination with a clamp which locks the elbow plate, or plates, immovably in relation to the tube or rod end and grips the base between said clamp and the elbow plate arm or arms which bear against the base, substantially as and for the purposes set forth. 5th. In a connecting device, a tube or rod end having an elbow plate or elbow plates pivoted thereto, said end and one arm of the, or each, elbow plate being adapted to enter a hole in a base, the other arm of the, or each, elbow plate extending transversely to the tube or rod end when the latter begins to enter the hole, but swinging to a longitudinal position on striking the base, whereby the, or each, arm within the hole is swung to bear against the base, the, or each, said elbow plate having a recess X whereby jagged edges Y, around said hole may be avoided, in combination with a leakage preventing washer or washers and a clamp for immovably securing the washer or washers, elbow plate or plates, and the base together, substantially as and for the purposes set forth. 6th. In a connecting device, the combination of a slotted tube or rod end A, having one or more elbow plates pivoted thereto, a shoulder O, a smooth portion m, and a screw threaded portion M, with a sleeve K, nut L, and washers to prevent leakage, all substantially as and for the purposes set forth. 7th. In a connecting device, a tube or rod end having one or more elbow plates pivoted thereto, and a point for making a hole in a base, the, or each, plate having a recess adapted to avoid the jagged edges of said hole when the tube or rod end and part of the, or each, elbow plate is inserted therein, in combination with a clamp for rigidly holding the tube or rod end, the base, and the, or each, elbow plate rigidly together, substantially as and for the purposes set forth. 8th. In a connecting device, the combination with the bottom of a base B, of a tube end which is provided with a slot or aperture, said tube end being so clamped to the base that the slot or aperture lies partly within and partly without the base, substantially as and for the purposes set forth.

**No. 52,995. Bicycle Saddle. (Selle de bicyclee.)**

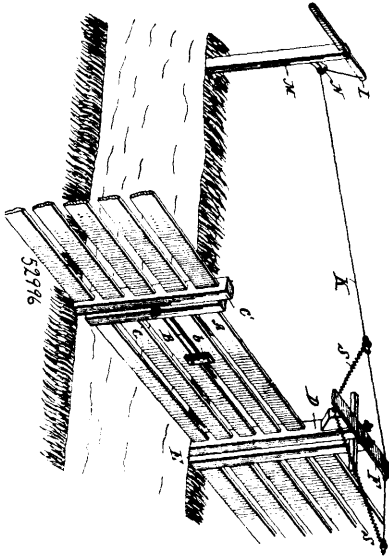


Mary Foote Henderson, Washington, Columbia, U.S.A., 21st July, 1896; 6 years. (Filed 22nd June, 1896.)

*Claim.*—1st. A frame for a bicycle saddle or attachment comprising two approximately elliptical loops, one forming the contour of the seat and the other the contour of the guard, and a contracted and depressed connection or bridge between the two loops, substantially as described. 2nd. A framework for a bicycle saddle shaped to form a rear loop to support the seat, a front loop of approximately elliptical outline, and a connection or bridge whose sides curve downward and inward from the rear loop, and upward and outward, toward the front loop, thereby forming on each side a cavity corresponding to the contour of the leg, substantially as described. 3rd. A bicycle saddle frame comprising a seat at the back and a guard in front, with a space between them, in combination with a cushion covering the seat and guard, and forming between the two cavities conforming to the contour of the rider's legs, substantially as described. 4th. A bicycle seat provided on its edge with a bead or rib of rubber, substantially as described. 5th. A bicycle seat having a seat and guard with a depression or space between, adapted to the

contour of the rider's legs, and provided with lateral or edge cushions to prevent contact of the legs with rigid surfaces or edges, substantially as described. 6th. A bicycle saddle comprising a framework shaped to form the contours of the seat and guard respectively, with an intermediate depression, and provided with recesses or pockets beneath the edge of the seat, and with pads or cushions in said recesses or pockets, substantially as described.

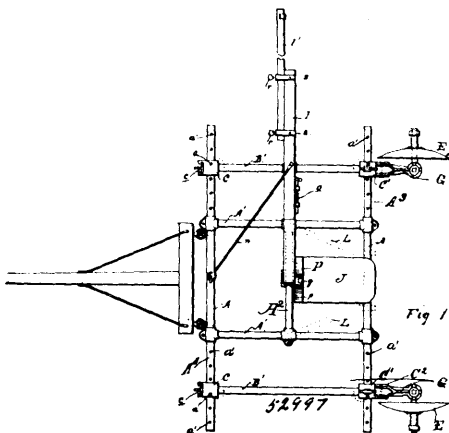
**No. 52,906. Gate. (Barrière.)**



Frank Victor Burner, Elko, Nevada, U.S.A., 22nd July, 1896; 6 years. (Filed 29th June, 1896.)

*Claim.*—1st. The combination with the gate and the lever pivoted to the hinge post and attached to said gate, of coiled springs attached to one end of said lever and wires attached to the other end of said lever and to said springs, the said wires being in turn connected with the outer end of the main operating levers, substantially as and for the purpose described. 2nd. The combination of the gate, the latch post, the latch and the catch, the lever pivoted on the hinge post and connected with the gate post, wires connected to one end of said lever, the operating levers connected with said wires, and coiled springs connected to the opposite ends of said guide lever and with said wire, substantially as and for the purpose described. 3rd. The combination with the gate, the latch post, the latch and the catch, of the lever pivoted on the hinge post and connected with the gate post, the operating levers and wires connecting the outer of one of said operating levers with the guide lever, and coiled springs attached to said wire connected to said guide lever, and a wire connected to the other of said operating levers passing around the pulley on the opposite side of the gate and in turn connected with said coiled spring, substantially as and for the purpose described.

**No. 52,907. Land Marker, etc. (Marqueur de terrains, etc.)**

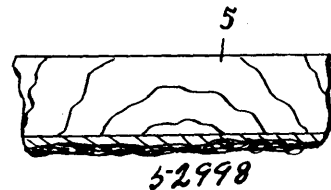


Asa S. Linthecum, Wellham's Cross Roads, Maryland, U.S.A., 22nd July, 1896; 6 years. (Filed 30th June, 1896.)

*Claim.*—1st. In a marker and furrower, the combination with a central rigid frame, of parallel extensions projecting laterally from

the opposite corners of the frame and provided with a series of apertures, runner sections comprising connecting bars, runners, and the blocks C C' having horizontal openings through which the extensions pass and vertical apertures, removable pins fitting through the apertures in the blocks and extensions, ears on the blocks C', a disc-supporting arm pivotally secured to the ears, an adjustable disc on the arm, a sector rack fixedly secured to the block C', a lever carrying the dog engaging the rack, and a rigid rod pivotally connecting the lever with the disc-supporting arm, substantially as described. 2nd. The combination with the rectangular frame, of projections extending laterally from the ends thereof parallel with each other and formed with a series of perforations, a laterally adjustable runner section comprising a runner, a cross-bar, and single-piece blocks connecting the same formed with horizontal openings through which the extensions pass, and apertures in line with the apertures in the extensions, and removable securing pins passing through the apertures, substantially as described. 3rd. The combination with a frame, of a laterally adjustable runner section and means for effecting the adjustment thereof, a single piece coupling block at the rear of the runner formed with integral lateral projections and a rigid sector, a lever secured on the sector carrying a suitable locking dog, a vertically-adjustable disc-supporting arm pivotally secured to the projections of the block, a disc at the outer end of the arm, and a rigid rod pivotally connected to the arm at one end and with a lever at the opposite end, substantially as described. 4th. The combination with a frame, of laterally adjustable runners, coupling blocks between the frame and rear ends of the runners consisting of single piece blocks having ears, vertically adjustable disc-supporting arms pivotally secured to the ears, a disc on the arms, a lever pivoted on the machine, means for holding the lever in adjusted positions, and a rigid link connecting the lever with the arms, substantially as described. 5th. The combination with a disc-supporting arm having a bearing plate at its outer end, and an apertured hub plate, an eye-bolt passing through the plate, a shaft passing through the hub plate and eye-bolt, independent means for securing the shaft in the hub plate, a disc, an elongated sleeve secured to the outer face of the disc, and a nut on the shaft entering a recess in the sleeve and engaging the same for securing the disc on the shaft, substantially as described.

**No. 52,908. Smoke Stack. (Cheminée.)**



Charles Pickring, Richmond, Quebec, Canada, 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

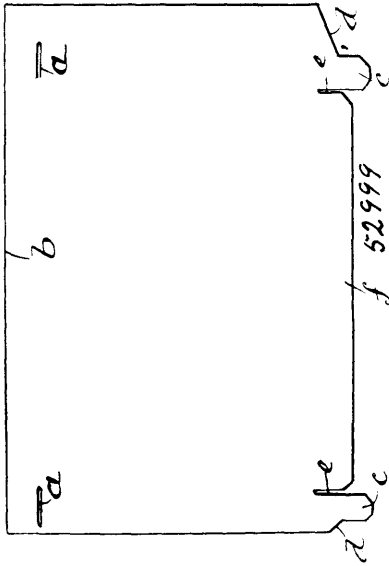
*Claim.*—1st. A smoke stack or chimney having an approximately smooth inside surface and such surface coated with a petrifiable material, for the purpose set forth. 2nd. A smoke stack or chimney having its inside face coated with sand, for the purpose set forth. 3rd. A smoke stack or chimney formed of a combustible material presenting an approximately smooth inside surface and such surface coated with a petrifiable material, for the purpose set forth. 4th. A smoke stack or chimney formed of wood presenting an approximately smooth inside surface and such surface coated with a petrifiable material, for the purpose set forth. 5th. A smoke stack or chimney formed of a combustible material and coated on its inside surface with sand, for the purpose set forth. 6th. A smoke stack or chimney formed of wood and coated on its inside surface with sand, for the purpose set forth. 7th. A smoke stack or chimney formed of wood and coated on its inside surface with paint and sand, for the purpose set forth. 8th. A smoke stack or chimney rectangular in cross section and formed of a number or parallel wood boards with transverse straps holding same together, and coated on its inside surface with petrifiable material, for the purpose set forth. 9th. A wood stack comprising a body section, top section and flared bottom section with its inside surface fire-proofed, for the purpose set forth. 10th. A wood smoke stack rectangular in cross section and comprising a body section, top section and flared bottom section with its inside surface fire-proofed, for the purpose set forth. 11th. A wood smoke stack rectangular in cross section comprising a body section, top section and flared bottom section with strips 15 for connecting the last named sections together, for the purpose set forth. 12th. A wood smoke stack rectangular in cross section comprising a body section, top section and flared bottom section formed of a number of parallel wood boards with transverse straps holding same together, the top section overlapping the body section and strips 15 for connecting the body and bottom sections together, for the purpose set forth.

**No. 52,909. Sheet Metal Pipe.**

(*Tuyau en feuille de métal.*)

William Thomas Brown McDonald, Granby, Quebec, Canada, 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

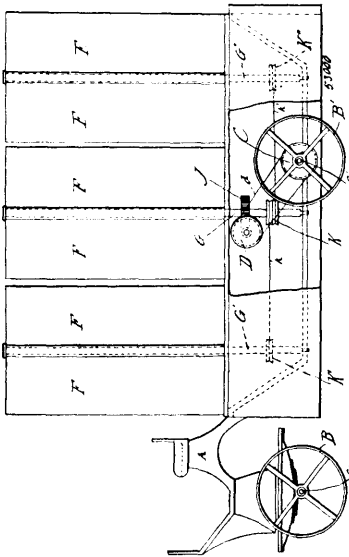
*Claim.*—1st. A joint of sheet metal pipe having one meeting edge portion plain and the other meeting edge portion formed with a



pocket to receive the plain edge portion, tongues upon the pocketed portion and the plain portion cut to receive such tongues, for the purpose set forth. 2nd. A joint of sheet metal pipe having a plain edge portion with slots near same and an opposite edge formed with tongues constructed to enter such slots and be bent back over the inside of such plain edge portion, the metal edge portion between the tongues being folded to form a pocket, substantially as shown and described. 3rd. A sheet metal pipe blank having slot, *a, a*, near one edge *b*, the opposite edge being cut away as at *d, d* and notched as at *e, e*, forming tongues *e, e*, for the purpose set forth.

**No. 53,000. Advertising Vehicle.**

(Voiture pour annoncer.)

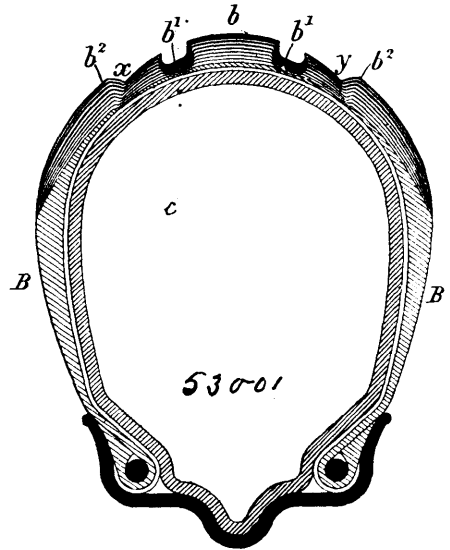


Joseph Salomon Nelson Guindon, Montréal, Québec, Canada, 22 juillet 1896; 6 ans. (Déposé 18 juin 1896.)

*Résumé.*—1°. Dans une voiture pour annoncer, la combinaison d'une poulie fixée sur un essieu *e*<sup>1</sup> de la dite voiture, avec une autre poulie *D* fixée à l'extrémité d'une vis sans fin *E* convenablement assujettie à la charpente de la voiture, et un pivot vertical *G* portant une roue dentée *J* actionnée par la vis sans fin *E*. 2°. Dans une voiture pour annoncer, la combinaison avec la charpente de la dite voiture, de pivots verticaux *G*<sup>1</sup>, *G* et *G*<sup>2</sup> portant respectivement des poulies *K*<sup>1</sup>, *K* et *K*<sup>2</sup> et des tableaux *F* convenable pour recevoir des annonces.

**No. 53,001. Pneumatic Tire for Velocipedes, etc.**

(Bandage pneumatique pour vélocipèdes.)

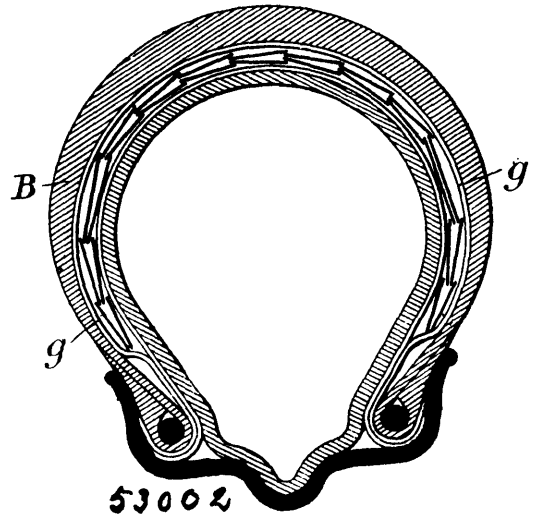


Charles Fitz Roy Alexander Hallifax Bagot, 59 Cadogan Square, London, England, 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—1st. A tire of which the tread and adjoining parts are formed by gradual vulcanization, substantially as hereinbefore described. 2nd. A tire of cross section, substantially as described and shown in the drawings. 3rd. A tire of cross section, substantially as described and shown in the drawings, such tire having its tread and adjoining parts formed by gradual vulcanization. 4th. The improved tires hereinbefore described.

**No. 53,002. Pneumatic Tire for Velocipedes, etc.**

(Bandage pneumatique pour vélocipèdes, etc.)



Charles Fitz Roy Alexander Hallifax Bagot, 59 Cadogan Square, London, England, 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—1st. A puncture-proof band for pneumatic tires formed of discs or plates connected together by end and side rivets or tags, substantially as herein described. 2nd. A puncture-proof band for pneumatic tires formed of discs or plates as shown in the drawings connected together by tags or rivets, substantially as herein described. 3rd. The improved puncture-proof bands herein described.

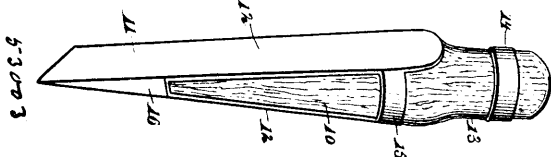
**No. 53,003. Wedge. (Coin.)**

William J. Harmon, Vernon, Washington, U.S.A., 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—A wedge comprising a wooden body and a metal frame, said body having opposite bevelled sides and being provided with a head projecting above the frame and having a metal band and said frame being provided with opposite side portions connected together at their lower ends and bevelled to fit the bevelled sides of the

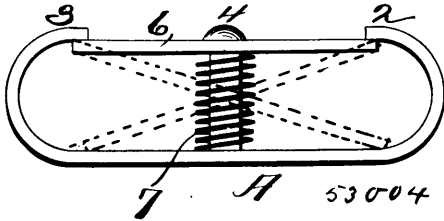


body, said frame having its sides between said bevelled side portions thereof open to permit the expansion of the wooden body laterally



in the frame, and straps formed integrally with the bevelled portions of the frame at the upper parts thereof said straps are arranged to extend across the open sides of the frame to tie the bevelled side portions thereof together at their upper parts, substantially as set forth.

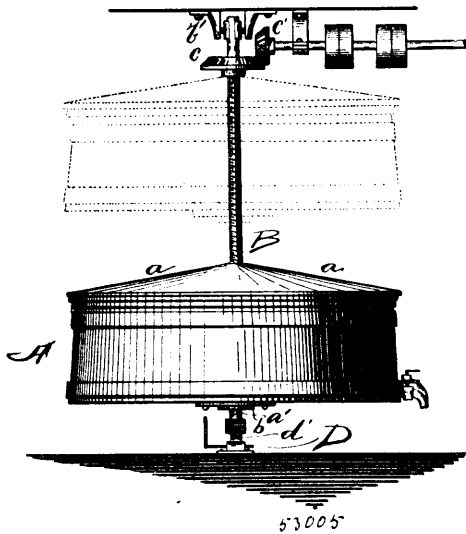
**No. 53,004. Snap. (Bouterolle.)**



William Grant Kelly, Niagara Falls Centre, Ontario, Canada, 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—1st. A snap comprising a body having hooks on both ends, a tongue, and a spring engaging with said tongue to hold it normally in engagement with both hooks, whereby either hooks can be opened separately, or both can be opened simultaneously. 2nd. A snap comprising a body, having hooks on both ends, a tongue provided with a slot, a post through said slot and secured in said body, and a spring engaging with said tongue to hold it normally in engagement with both hooks, whereby either hook can be opened separately or both can be opened simultaneously.

**No. 53,005. Apparatus for Making Butter. (Appareil pour faire du beurre.)**

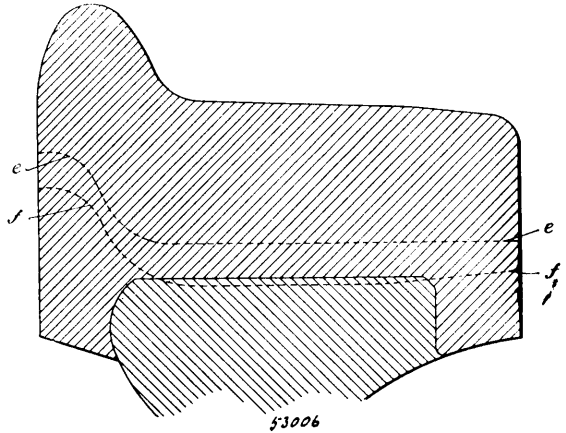


Frederick William Church, Belgium, New York, U.S.A., 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—1st. An apparatus for making butter comprising a milk-vat or receptacle mounted upon a vertically threaded shaft, a vertically threaded shaft, means for rotating said shaft for the purpose of raising and lowering said vat. 2nd. An apparatus for making butter comprising a milk-vat or receptacle mounted upon a vertically threaded shaft, a vertically threaded shaft, said shaft being hinged at its upper end, means for rotating said shaft for the purpose of raising and lowering said vat and means for tilting said shaft at its lower end for the purpose of tilting said vat. 3rd. The combination with a vertical threaded shaft of a vat-receptacle having a central threaded nut with which the threads on said shaft are adapted to engage, a faucet in said receptacle, a vat having a central opening and a vertically perforated rim and a draw-off faucet, and an ice-receptacle mounted in said vat opening, substantially as described for the purposes set forth. 4th. In a milk-vat or receptacle provided with a central opening, and an ice-receptacle mounted in

said opening as set forth. 5th. In a milk-vat or receptacle provided with a central opening and ice-receptacle mounted therein, and a trough surrounding said ice-receptacle into which the milk is adapted to flow as set forth.

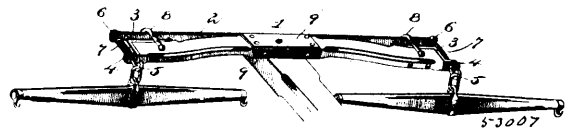
**No. 53,006. Car Wheel. (Roue de chars.)**



William Johnston Taylor, Bound Brook, Somerset, New Jersey, U.S.A., 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—A car wheel provided with a steel tire having an internal projecting rib interlocked between two walls of a cast iron or cast steel body or centre welded or fused to said tire and said rib being located in proximity to the flange side of the wheel, whereby in connection with said body or centre a substantial support is established and maintained for the flange of said tire to the wear of the tread thereof to the union of the same with said body or centre of the wheel, substantially as described.

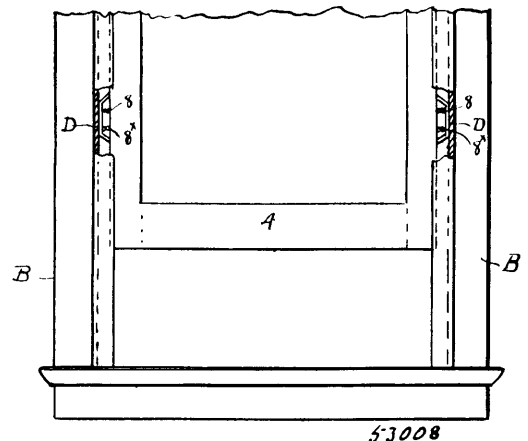
**No. 53,007. Whiffletree. (Palonnier.)**



John Duckey Cason and James Hunter Jamieson, both of Nashville, Tennessee, U.S.A., 22nd July, 1896; 6 years. (Filed 2nd July, 1896.)

*Claim.*—The combination with a whiffletree having its ends deflected forward of the normal plane, of a pair of angle-irons secured to the opposite ends thereof, and each comprising a longitudinal portion secured to the rear side of the whiffletree, a transverse or forwardly extending portion covering and protecting the contiguous end of the whiffletree and a lateral ear or eye, a draft-cushioning spring extending longitudinally of and secured to the whiffletree, a draft hook connected to said spring and passing through the eye of the angle iron, and the coiled spring surrounding said hook and interposed between the draft-cushioning spring and the lateral eye of the angle iron, substantially as described.

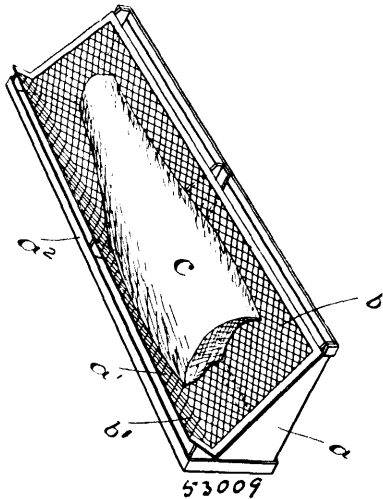
**No. 53,008. Window Sash Holder. (Porte-cadre de châssis.)**



Eugene E. Hull, Silver Cliff, Colorado, U.S.A., 22nd July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—A window sash holder, comprising a bottom plate having projections thereon to take the ends of springs, an upper plate having inclined end portions and projections from the foot of the inclines, and formed with seats to take the ends of springs, spiral springs arranged on the seats on the plates, end blocks to the ends of the bottom plate formed with ways or recesses to take and hold the ends of the upper plate, and fastening-screws projecting through the end blocks and the ends of the bottom plate.

**No. 53,009. Method of and Apparatus for Smoking Fish.** (*Méthode et appareil pour fumer le poisson*)

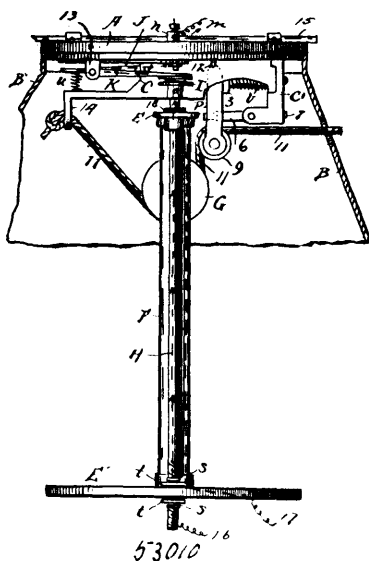


Carl Waldemann, Coslin, Prussia, Germany, 22nd July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—1st. The process of smoking fish, which consists in cutting the fish in longitudinal sections, placing upon the inner split surface a piece of membranous or similar appropriate material, and then laying the fish upon a frame over the smoke, substantially as described. 2nd. The process of smoking fish, as salmon, which consists in splitting the fish in longitudinal sections and in supporting the said sections upon a metal frame having a surface of wire netting to hold said fish horizontally and in an inclined position, substantially as described. 3rd. A frame for holding fish while being cured and smoked substantially as herein described, while held in a horizontal position, consisting of a number of triangular transverse frame pieces having base ledge projections and wire screen surfaces fitted thereon and also inclined in opposite directions.

**No. 53,010. Arc Light Support.**

(*Support de lumières à arc.*)



Barton Pickering, Dayton, Ohio, U.S.A., 22nd July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—1st. In an arc light support the combination of the case with spring-actuated catch 1, held therein, having ears 2, on the top and lugs 31 on the sides at the bottom, the gravitative dog 4,

pivoted in said ears to hold said catch out of contact with the hanger, the pintle 3, spring-actuated lever 7, the locking dog 6 pivoted to case at one end and the other resting on said lever, the operating arm P pivoted to said case and engaging said lugs of the catch, the shouldered hanger D provided with plate E, which supports an arc lamp, the conductor rod H held in said plate and the pulley G; the rope 11 to raise and lower said lamp, the electrical circuit plate 12, pivotal arm K to engage said conductor rod, pivotal arm J with spiral spring to hold the same in contact with said plate when the said lamp is out of circuit, the plate L with time connections, substantially as shown and described. 2nd. In combination with the spring-actuated catch having an inclosing case, the shouldered hanger head to engage said catch, the gravitative dog held in the ears of said catch to hold said head out of engagement with said catch when, by bearing against the face of the same, the same is withdrawn from contact with the hanger, substantially as described. 3rd. The combination of the case, the operating-arm P with cross-bar, and pulley 9 pivoted therein, the spring-actuated catch with lateral lugs to engage said arm, the spring-actuated lever and dog held on said lever and the two pivoted to said case, as a means to hold said operating-arm from being carried back and thereby preventing the carrying back said catch, substantially as set forth. 4th. The combination of the case provided with a lug for the attachment of a rope, the spring-actuated catch having a gravitative dog pivoted at its front end, lugs on its sides and carrying a pintle in a vertical orifice, the operating-arm being provided with a cross-bar and pulley for a rope, hanger D provided with a pulley, lever 7 with spring, and engaging dog 6 to lock said operating arm, that the hanger may be attached when the same is drawn up, and to carry back said catch and thereby release said hanger, substantially as set forth. 5th. In an arc light suspension catch the combination of the long and short electric circuits; the former comprising plate 12 connected with line wire, arm K, insulated connecting rod H, helices, hanger D, case and plate L with line; the latter comprising plate 12, pivotal connection arm J, case and plate L to line, substantially as set forth. 6th. In an arc lamp suspension catch the insulated conductor rod H supported in lamp and hanger, the hanger head to which said lamp is suspended, arms J and K to form distinct electrical circuits, as said lamp is attached and detached, to and from said suspending catch, substantially as set forth.

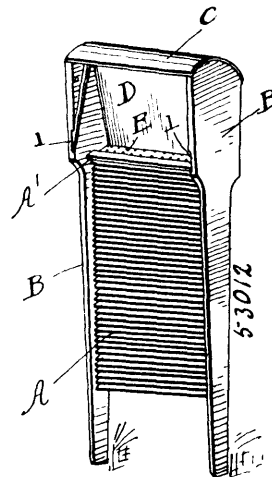
**No. 53,011. Process of Preserving Substances.**

(*Procédé pour préserver des substances.*)

Helen Bierer, Pass Robles, California, U.S.A., 22nd July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—1st. The improvement in the art of preserving eggs, or the like, which consists in coating them with a mixture of lard, formic acid and tincture of benzoin, substantially as set forth. 2nd. The improvement in the art of preserving eggs, or the like, which consists in coating them with a mixture of lard, formic acid and tincture of benzoin, and packing them in a body of dry, air-excluding substance, substantially as set forth.

**No. 53,012. Washboard.** (*Planche à laver.*)

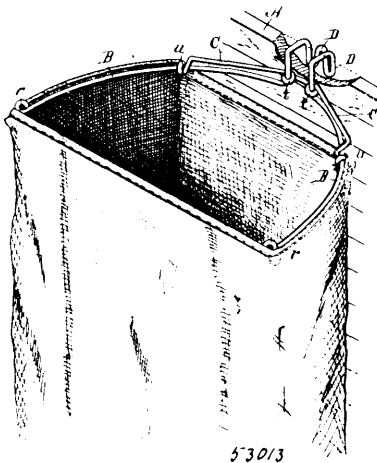


Rosanna Jane Hartwick, Saginaw, Michigan, U.S.A., 22nd July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—1st. In a washboard, the combination with a double rubbing board, side pieces each having oblique grooves upon their inside above the rubbing board, commencing at the outer edges of each side piece on a line at or near the top of the rubbing board and extending inwardly and obliquely to near the head piece, forming parallel sets of grooves, of the reversible soap-holder or back adapted to slide into the grooves from the outer ends thereof, and means for holding the soap-holder in the grooves, and a head-piece connecting the upper ends of the side-pieces and independent of the soap-holder, substantially as described. 2nd. In a reversible washboard

a reversible soap-holder for the board comprising a back lined with zinc and having a laterally-extending perforated bottom, the back adapted to slide in oblique grooves in parallel sets in the sides of the frame above the rubbing board, substantially as described.

**No. 53,013. Bag Holder. (Porte sac.)**

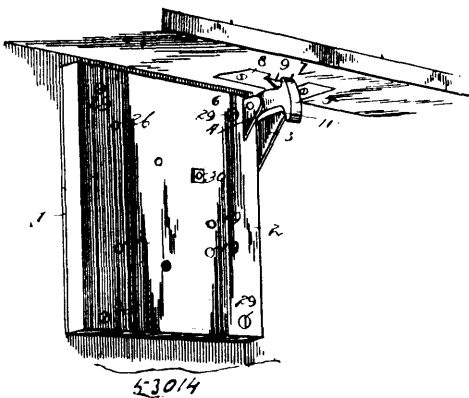


53013

Martin W. Morton, Kalamazoo, Michigan, U.S.A., 22nd July, 1896; 6 years. (Filed 3rd July, 1896.)

*Claim.*—1st. In a bag holder, the combination of the extended spring wire bows B B, with hooks  $r^1$ ,  $r^1$ , formed at the outer ends with stops  $r$ , formed by a turn in the wire and looped hook D formed at the centre, shorter bows C C coiled around the shank of the hook D at the centre and extended along said bows B, and coiled around the same at  $u$ , and extended outwardly and forwardly and formed into hooks  $n$ , all co-acting together, substantially as described. 2nd. In a bag holder, the combination of the extended spring wire bows B B formed into a looped hook D at the centre portion, and shorter bows C C coiled around the shank of the hook portion and extending along parallel with the said bows B B and wrapped around the same and extended beyond that point to engage a bag, substantially as described. 3rd. In a bag holder, the combination of a spring bow with hooks  $r^1$  at the ends formed with a turn  $r$  in the wire for stops and hooks  $n$  to each side, and a central hook D to serve as a support for the same, as specified. 4th. In a bag holder, the combination of a spring bow with hooks thereon and a central supporting hook D with a loop D<sup>1</sup> to the centre thereof, for the purpose specified.

**No. 53,014. Latch and Lock. (Loquet et serrure.)**



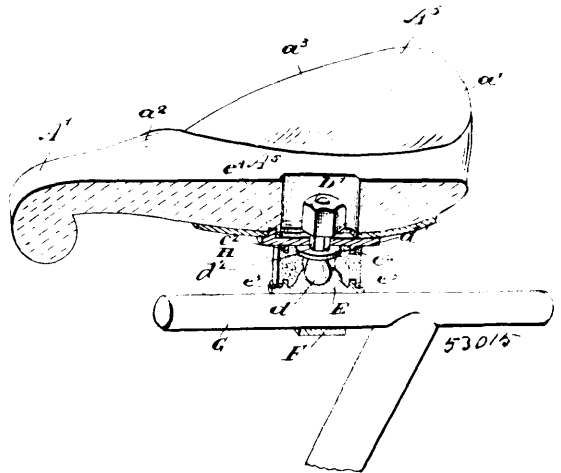
53014

John R. Bedell and Charles J. Blackburn, both of Bethany, Missouri, U.S.A., 22nd July, 1896; 6 years. (Filed 4th July, 1896.)

*Claim.*—1st. A combined latch and lock, comprising a suitable case, a catch pivoted intermediate its ends thereto, a reciprocating latch-bolt slotted at one end to receive one arm of the catch, a spring bearing against the catch for giving the same a normal tendency, a reciprocating lock-bolt arranged in the plane of the latch-bolt but moving at right angles thereto and adapted to engage therewith, and a slide button located upon the outer surface of the door and having its spindle passed through a slot in the door and in engagement with the latch-bolt for sliding the latter against the tension of the spring, substantially as described. 2nd. A combined latch and lock, comprising a suitable case, a catch pivoted intermediate its ends thereto, a reciprocating latch-bolt engaging at one end with

one arm of the catch, a reciprocating lock-bolt moving in a plane at right angles to the latch-bolt and adapted to engage the latter, a slide button working through a slot in the case and engaging the latch-bolt for reciprocating it, and a two-armed spring arranged in the angle between the latch and lock-bolts, one arm of said spring being in engagement with the latch-bolt and the other arm in engagement with the lock-bolt for holding the latter in either its operative or inoperative position, substantially as described.

**No. 53,015. Bicycle Saddle. (Selle de bicyclee.)**

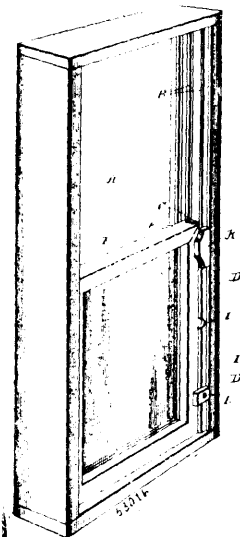


53015

Edgar Beaumont Jarvis, Toronto, Ontario, Canada, 22nd July, 1896; 6 years. (Filed 6th July, 1896.)

*Claim.*—1st. A bicycle saddle having a solid top provided with a central longitudinal depression or channel and depressed downwardly curved truncated horn, side ridges for such depression and laterally extending portions provided with concavo-depressions conforming to the shape of the buttocks, as and for the purpose specified. 2nd. A bicycle saddle having a solid top provided with a central longitudinal depression or channel and depressed downwardly curved truncated horn, side ridges for such depression, laterally extending portions provided with concavo-depressions conforming to the shape of the buttocks, a raised front portion to the ridges, and a raised portion at the rear of the concavo-depression, as and for the purpose specified. 3rd. In combination with a bicycle saddle having a solid top provided with a central longitudinal depression or channel and depressed downwardly curved truncated horn, side ridges for such depression, laterally extending portions provided with concavo-depressions conforming to the shape of the buttocks, and a universal joint connection between the saddle and the saddle bar and a cylindrical spring surrounding such joint connection and suitably supported as and for the purpose specified. 4th. The combination with the saddle and saddle-bar, of a universal joint connection between the saddle and bar and a spring surrounding such universal joint and suitable supports for such spring upon the saddle and saddle bar respectively, as and for the purpose specified. 5th. In combination the saddle, the plate extending across the bottom of the same, the washer situated underneath the plate, the ball portion of the joint connected to the washer and plate, the circular socket plate, means for connecting it to the saddle bar, and a cylindrical rubber spring surrounding the joint and means for retaining such spring in position, as and for the purpose specified. 6th. In combination the saddle, the plate extending across the bottom of the same, the washer situated underneath the plate, the ball portion of the joint connected to the washer and plate, the circular socket plate, means for connecting it to the saddle bar, and a cylindrical rubber spring surrounding the joint and teats in the washer and socket plate extending into holes in the top and bottom respectively of the rubber spring, as and for the purpose specified. 7th. In combination the saddle, the cross plate secured underneath the same, the longitudinal slot extending through the saddle, the longitudinal slot in the plate, the washer, the bolt extending through the washer, and slots in the plate and saddle, the nut screwed on to the top of the bolt, the ball at the bottom, the socket plate, means for securing it to the saddle bar, and the spring surrounding the joint, as and for the purpose specified. 8th. In combination the saddle, the plate extending across the bottom of the same, the washer situated beneath the plate, the teat extending from such washer into the plate, the ball portion of the joint connected to the washer and plate, the circular socket-plate, means for connecting it to the saddle bar, and a suitable spring surrounding the joint and means for retaining the spring in position, as and for the purpose specified. 9th. The combination with the saddle and saddle bar, of a universal joint connection between the saddle and bar and resilient means between the saddle and bar for maintaining such saddle normally in its proper position, as and for the purpose specified.

**No. 53,016. Sash-holder. (Porte-croisée.)**

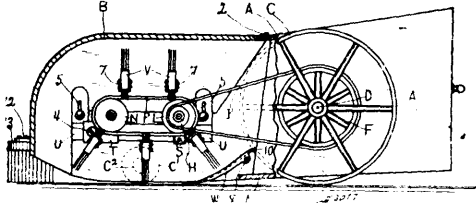


Charles Hadden, Mazon, Illinois, U.S.A., 22nd July, 1896; 6 years. (Filed 6th July, 1896.)

*Claim.*—1st. The combination with the window frame and its guides, of a sash provided with spring-pressed strips, and rollers working in said guides and engaged by said strips, substantially as described. 2nd. The combination with the window frame and its guide strips, having openings for the insertion of rollers, of the sash having grooves in its side rails, springs located in said grooves, strips in said grooves bearing against said springs, and rollers between the guides of the frame and against which said strips bear, substantially as and for the purpose specified.

**No. 53,017. Street Cleaning Machine.**

(Machine pour nettoyer les rues.)



Samuel Stephens, Hamilton, Ontario, Canada, 22nd July, 1896; 6 years. (Filed 7th July, 1896.)

*Claim.*—1st. In a street cleaning machine the combination of the frame work A, having curved hinged cover B, the ground wheels C, on spindle E, in bearings D, the forward ground wheels C', on axle C'', the sprocket wheel F, on said spindle to drive the adjustable sprocket wheels K, and L, on shaft J, by chain O, and P, carrying brushes, the sprocket wheels M, and N, on shaft R, and the sectional scraper forming diaphragm pivoted to sides of machine, substantially as described and set forth. 2nd. The adjustable metallic frames U, provided with bearings for shaft J, and adjustable bearings for shaft R, both shafts provided with sprocket wheels having chains provided with clips at certain distances to carry oval working brushes, driven by sprocket wheel connected to ground wheels in combination with the frame of the machine, substantially as described and set forth. 3rd. The combination with the frame of the machine having hinged cover and ground wheels, of a scraper constructed in independent sections forming upper diaphragm and pivoted to a transverse rod, the oval revolving brushes, and a soil receptacle located in rear of said diaphragm, substantially as described and set forth. 4th. The frame of the machine provided with ground wheels C, capable of driving by sprocket wheels F, and H, as described, the oval revolving brushes secured to their chains by means of clips on the sprocket wheels in combination with the ground scraper in sections in rear of said oval revolving brushes, pivoted on a transverse rod, the upper part of each section extended to form a diaphragm of proper height in front of the rear soil receptacle, substantially as described and set forth.

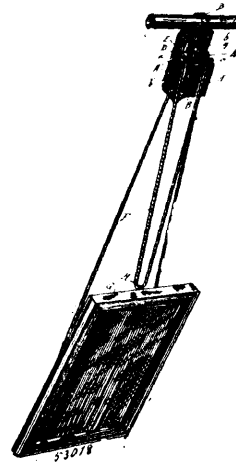
**No. 53,018. Picture Hanging Device.**

(Appareil à suspendre les images.)

William P. Cave, San Bernardino, California, U.S.A., 22nd July, 1896; 6 years. (Filed 8th July, 1896.)

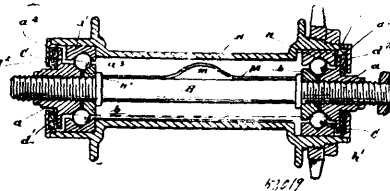
*Claim.*—1st. A picture hanging device comprising a body portion with means for its application to a wall or other support, a yield-

ingly-supported cord-supporting device and a friction device cooperating with the cord-supporting device, substantially as specified.



2nd. A picture hanging device comprising a body portion with slotted lugs, and a yieldingly-supported bar having arms working in the slots of said lugs, as set forth. 3rd. A picture hanging device comprising a body portion with slotted lugs and a socket, a spring in said socket, and a bar having a shank working in said socket upon said spring and lateral arms working in the slots of the lugs, substantially as specified. 4th. A picture hanging device comprising a body portion with slotted lugs and a socket with oppositely-disposed slots, a spring in said socket, a T-shaped bar and raised portions on the body portion acting in conjunction with the lateral arms of the said bar to clamp the picture cord, substantially as specified.

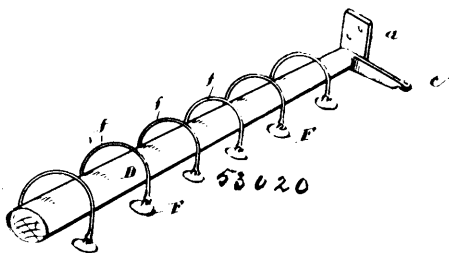
**No. 53,019. Axle Bearing. (Coussinet.)**



Charles A. Sullivan, Windsor, Ontario, and Daniel W. Bradford, Detroit, Michigan, U.S.A., 22nd July, 1896; 6 years. (Filed 18th May, 1896.)

*Claim.*—1st. In an axle bearing, the combination of an axle, ball-bearing cones mounted upon said axle, with a shell, ball-bearing rings adapted to be carried within said shell one of which is rigid and the other of which is free to move longitudinally with said axle, and balls arranged to engage between the cones and rings, substantially as described. 2nd. In an axle bearing, the combination of an axle, adjustable cones mounted on said axle, with a shell, ball-bearing rings carried within said shell, one of which is rigid and the other of which is free to move longitudinally with said axle, and balls arranged to engage between the cones and rings, substantially as described. 3rd. In an axle bearing, the combination of an axle, ball-bearing adjustable cones mounted upon said axle, fixed cones adapted to resist said adjustable cones, with a shell adapted to receive the axle and bearings, ball-bearing rings carried within said shell, one of which is rigid and the other of which is free to move longitudinally with said axle, and balls arranged to engage between the rings and cone, substantially as described. 4th. In an axle bearing, the combination of an axle, ball-bearing adjustable cones mounted upon said axle, fixed cones adapted to resist said adjustable cones mounted upon said axle, fixed cones adapted to resist said adjustable cones, with a shell adapted to receive said axle and bearing ball rings carried within said shell, one of which is rigid and the other of which is free to move longitudinally with said axle, balls arranged to engage between said cones and rings, dust proof washers and caps arranged to engage the ends of said shell, substantially as described. 5th. In an axle bearing, the combination of a shell adapted to receive bearings, ball-bearing rings carried within said shell, with an axle, fixed cones mounted upon said axle, adjustable cones provided with guard flanges adapted to co-act with said fixed cones to form a ball-bearing track, dust proof washers arranged to engage said flanges, caps to inclose the ends of said shell, and balls arranged to engage between said cone and rings, substantially as described. 6th. In a ball-bearing for hubs, the combination of an axle, adjustable ball-bearing cones mounted upon said axle, said cones being provided with a milled inner face, means adapted to engage said milled faces whereby the accidental disadjustment of the two cones is prevented, substantially as described.

**No. 53,020. Piano Attachment.** (*Attache de pianos.*)

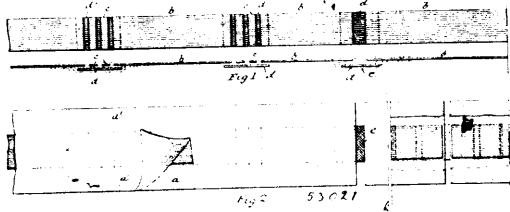


Charles D. Williams, Detroit, Michigan, U.S.A., and Joseph H. Elliott, Windsor, Ontario, Canada, 25th July, 1896; 6 years. (Filed 30th April, 1896.)

*Claim.*—1st. In a piano attachment, the combination with the strings of said piano, of vibrators adapted to engage said strings and means whereby they may be disengaged, substantially as described. 2nd. A piano attachment consisting of vibrators adapted to said horizontal bar, vibrators loosely suspended at the free ends of said springs and adapted to engage said strings, and means for operating said bar whereby said vibrators are either engaged or disengaged at the will of the operator, substantially as and for the purpose described.

**No. 53,021. Puncture-Proof Tire.**

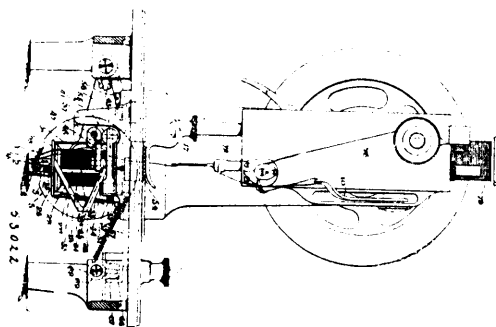
(*Bandage à l'épreuve des piqûres.*)



The Long Island Rubber and Cycle Company, New York, assignee of Abram Lent Smith, Brooklyn, both in the State of New York, U.S.A., 25th July, 1896; 6 years. (Filed 6th July, 1896.)

*Claim.*—1st. A puncture-proof strip for pneumatic tires, consisting of a flexible envelope divided into long and short pockets located in line with each other, metallic plates located in and fitting said pockets, the shorter plates being inserted between the separated ends of the longer plates, and a bridging plate overlapping the adjacent ends of the longer ends and backing up the shorter ones, substantially as described. 2nd. A puncture-proof strip for pneumatic tires severed at one or more points and having an elastic section inserted between the severed ends, in combination with a backing plate of puncture-proof material bridging the elastic section. 3rd. A puncture-proof strip for pneumatic tires having its ends bridged by a short puncture-proof strip, said short strip being connected with the ends of the main strip through elastic sections, as set forth.

**No. 53,022. Sewing Machine.** (*Machine à coudre.*)

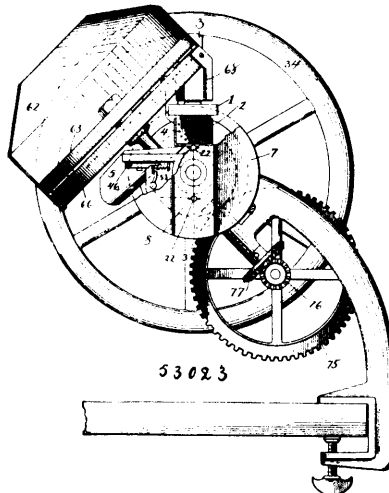


The New Branston Two Reel Sewing Machine Company, assignee of Charles Branston Hunt, both of London, England, 25th July, 1896; 6 years. (Filed 11th March, 1896.)

*Claim.*—1st. In a sewing machine, supporting the lower reel carrier from a suspended plate which is held in position between and from two swing discs or levers provided with gates, as set forth and substantially as shown. 2nd. In combination in a sewing

machine, in which the lower reel carrier is supported from a plate suspended by swing discs or levers having gates, a leg containing a spring with projecting lip for supporting lower reel holder, as set forth and substantially as shown. 3rd. The combination in a sewing machine of the lower reel carrier supported from a plate suspended from swing discs or levers having gates with a looper hook, as set forth and substantially as shown. 4th. In a sewing machine, providing the looper hook with a broad back extending from one edge only and with a forwardly disposed overhanging lip, as specified and substantially as represented.

**No. 53,023. Raisin Seeder.** (*Semoir.*)

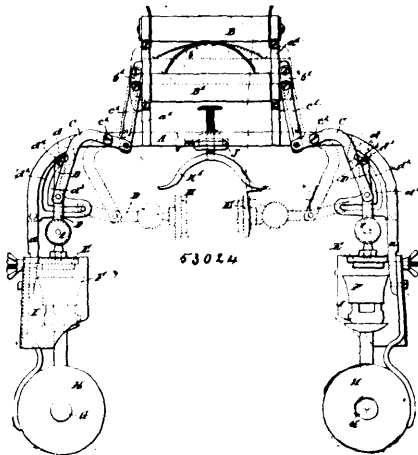


Frank Howard Chase and Thomas Edward Dougherty, both of Chicago, Illinois, U.S.A., 25th July, 1896; 6 years. (Filed 9th June, 1896.)

*Claim.*—1st. In a fruit seeder the combination of a pulp receiver and an elastic impaling device, said pulp receiver consisting of a number of pins set over an area at least as great as the area of the fruit to be seeded and with intervening spaces insufficient to admit the seeds, and means securing them together, each pin being parallel with every other pin, substantially as set forth. 2nd. A fruit seeder having in combination a pulp receiver consisting of a number of pins set over an area at least as great as the areas of the fruit to be seeded, and with intervening spaces insufficient to admit the seeds, each pin being parallel with every other pin, means securing them in place, an impaling device having an elastic working surface, means for relatively moving the pulp receiver and impaling device toward and from each other, and means confining said movement to a direction parallel with the pins of the pulp receiver, substantially as set forth. 3rd. In a fruit seeder, the combination of a movable part, means for moving it intermittently, a plurality of pulp receivers carried by it, and a seeding device adapted to co-operate with first one and then another of the pulp receivers, substantially as set forth. 4th. In a fruit seeder, the combination of a plunger carrying a seeding device, a movable part, a plurality of pulp receivers carried thereby and consisting of a number of pins set over an area at least as great as the area of the fruit to be seeded, and with intervening spaces insufficient to admit the seeds, and means for intermittently moving said part and bringing first one and then another of the pulp receivers in operative relation to the seeding device of the plunger, substantially as set forth. 5th. In a fruit seed, the combination of a revoluble part, a plurality of pulp receivers carried thereby, a seeding device adapted to co-operate with the pulp receivers, and means for intermittently revolving said part and thereby bringing first one and then another of the pulp receivers in operative relation to the co-operative seeding device, substantially as set forth. 6th. In a fruit seeder, the combination of a revoluble part, a plurality of pulp receivers carried thereby consisting of a number of closely set pins having their outer ends terminating flush with the face of said part, a seeding device adapted to co-operate with first one and then another of the pulp receivers, and a seed scraper located with its edge in close proximity to the surface of said part, substantially as set forth. 7th. In a fruit seeder, the combination with a pulp receiver and a cradle for sustaining the raisin opposite it, of an impaling device extending both above and below the bottom of the cradle, substantially as set forth. 8th. In a fruit seeder, the combination with a pulp receiver, of a cradle consisting of a number of rods, a plunger and an elastic pad carried by the plunger and adapted to impale the raisin upon the pulp receiver, and a pad being provided above its bottom margin with openings through which pass the rods of which the cradle is formed, substantially as set forth. 9th. In a fruit seeder, the combination with a plurality of pulp receivers having interstices and means for forcing the pulp thereinto, of a movable part by which the pulp receivers are carried, means for moving said part intermittently, a reciprocable pulp ejector occupying the interstices of each of the pulp

receivers, and means for alternately projecting and withdrawing the pulp ejectors, substantially as set forth. 10th. In a fruit seeder, the combination of a pulp receiver having interstices into which the pulp is forced, a movable part by which said pulp receiver is carried, means for intermittently moving said part, a pulp ejector occupying the interstices of the pulp receiver, a stem on the pulp ejector, a socket in the movable part aforesaid in which said stem fits whereby the pulp ejector is guided in its movement, and a cam for operating the ejector, substantially as set forth. 11th. In a fruit seeder, the combination with two co-operating seeding devices, of a plunger by which one of said seeding devices is carried and means for adjusting the relative positions of said seeding devices, substantially as set forth. 12th. In a fruit seeder, the combination with two co-operating seeding devices, of a plunger by which one of said devices is carried, a cam for operating said plunger and means for adjusting the position of the cam whereby the seeding devices are adjusted relatively to each other, substantially as set forth. 13th. In a fruit seeder, the combination of a plurality of seeding devices, a movable part by which they are carried, means for intermittently moving said part, a seeding device adapted to co-operate with first one and then another of the seeding devices aforesaid, a hopper for containing the fruit, means for discharging the fruit therefrom into the path of the seeding device last aforesaid, and means for operating said discharging means after each operation of said seeding device last aforesaid, substantially as set forth.

**No. 53,024. Apparatus for Branding Animals.**  
(*Fer à marquer les animaux*)

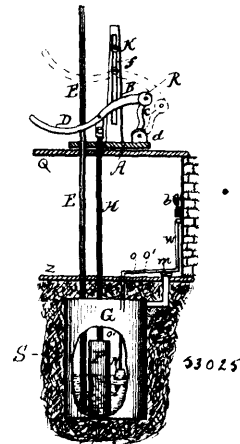


Henry William Potter, Wellington, New Zealand, and Simeon Frankel, Sydney, New South Wales, 5th July, 1896; 6 years. (Filed 6th June, 1896.)

*Claim.*—1st. The herein described appliance for marking or branding live sheep and other animals, consisting of the various parts, constructed, arranged and operating, substantially as and for the purposes specified. 2nd. In an appliance for marking or branding live sheep and other animals, a pair of handles (such as B, B<sup>1</sup>), the one fixed and the other movable, the latter one being retained in its normal position by a spring or springs and connected through the medium of suitable intermediate gearing with the brand or brands of the appliance, substantially as and for the purposes specified. 3rd. In an appliance for marking or branding live sheep and other animals, a set of three brands, the one in the centre being fixed and set to mark the top of the animal's nose, and the two side ones being connected together and operating so as to brand or mark each side of the animal's face, substantially as and for the purposes specified. 4th. In an appliance for marking or branding live sheep and other animals, a brand upon the end of an arm or lever (such as D) in combination with a bracket having a cam slot (such as d<sup>1</sup>), an operating bell crank lever (such as C), and a pitman connecting said lever to an operating handle, substantially as and for the purposes specified. 5th. In an appliance for marking or branding live sheep and other animals, a brand upon an end of an arm or lever (such as D) having a pin at its end fitted with an anti-friction roller working in a cam groove of approximately the shape herein described, said arm or lever being connected to the operating handle, substantially as and for the purposes specified. 6th. In an appliance for marking or branding live sheep and other animals, a brand (such as E) connected by a ball and socket joint (such as e, e<sup>1</sup>), to its supporting arm or lever, substantially as and for the purposes specified. 7th. In an appliance for marking or branding live sheep and other animals, a bridge piece or crutch (such as K<sup>1</sup>) adjustably mounted upon the frame so as to regulate the position of the appliance on the animal's head, substantially as and for the purposes specified. 8th. In an appliance for marking or branding live sheep and other animals, a muzzle (such as K) for guiding or assisting to guide the face of the animal into the proper position, in combination with the other operating parts of the appliance, substantially as and for the

purposes specified. 9th. In an appliance for marking or branding live sheep and other animals, a pair of brands (such as E), adapted to be pressed against each side of the animal's face in combination with a pair of burners mounted upon the frame of the appliance, substantially as and for the purposes specified.

**No. 53,025. Pump and Oil Tank.**  
(*Pompe et citerne à huile*)



Miletus J. Wirre, assignee of Charles Albert Thompson, both of Washington, Columbia, U.S.A., 25th July, 1896; 6 years. (Filed 21st May, 1896.)

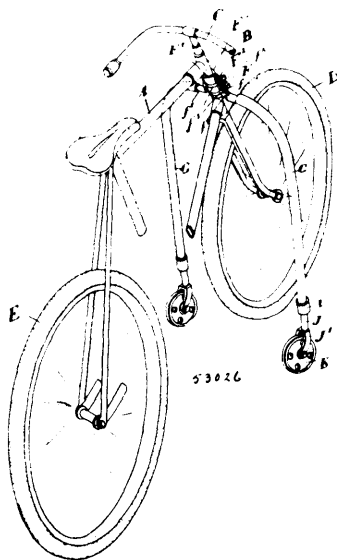
*Claim.*—1st. A suction pump having its cylinder inclosed within a protecting case immediately surrounded with an insulating covering of earth or other non-conductor, and having its operating mechanism above or outside of the insulating covering, substantially as set forth. 2nd. A suction pump having its cylinder inclosed within a protecting case buried in the earth whereby it is surrounded with an insulating covering of earth or the like, and having its operating mechanism above or outside of the insulating covering, substantially as set forth. 3rd. The combination with a storage tank of a suction pump having a measuring mechanism and a discharge pipe having a valve adjacent to its discharge end, which valve is provided with automatic means for closing the same, and which is adapted to be opened by the pressure of the liquid, substantially as set forth. 4th. A suction pump provided with a suitable base, a slotted upright or bracket mounted thereon, stops adjustable at any predetermined point in said slot, these stops being tubes which are adjusted in and out of the path of the lever, a movable fulcrum pivoted to said base, a lever or handle pivoted to the fulcrum and operating against a stop, which determines the amount of liquid to be drawn and connected with the piston rod, and a discharge pipe, substantially as set forth. 5th. A suction pump provided with a suitable base, a slotted upright or bracket mounted thereon, stops adjustable at any predetermined point in said slot, a fulcrum pivoted to said base, a lever pivoted to the fulcrum and connected with the piston rod, and a discharge pipe with a valve adjacent to its discharge end, which is provided with automatic means for closing the same, and which is opened by the pressure of the liquid when the pump is operated, substantially as set forth. 6th. In combination with a suction pump provided with a measuring mechanism and a discharge pipe, a valve on the delivery end of the discharge pipe yieldingly resting on its seat so that the pressure of the liquid when the pump is operated will cause it to be opened, substantially as set forth.

**No. 53,026. Bicycle Support.** (*Support de bicycles.*)

Elizabeth Baldwin, assignee of Angus Morrison, both of Toronto, Ontario, Canada, 25th July, 1896; 6 years. (Filed 29th May, 1896.)

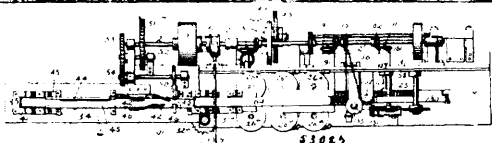
*Claim.*—1st. In a bicycle support for learners' use, the combination with the front portion of the frame and front standard of the attaching bracket secured thereto, laterally and downwardly-extending legs attached to or forming part of the bracket, and caster wheels attached to the lower end of the legs, as and for the purpose specified. 2nd. In a bicycle support for learners' use, in combination the front standard, the attaching bracket comprising the rear portion with semi-cylindrical recesses, and wings and laterally-extending studs, the front portion with semi-cylindrical recesses and wings, means for securing the front and rear portions to grip the standard, downwardly-extending legs secured to the ends of the laterally-extending studs, and caster wheels at the bottoms of the legs, as and for the purpose specified. 3rd. The combination with the front portion of the frame and laterally and downwardly-extending legs and means for rigidly securing such legs in position, of the threaded stem for each leg provided with a caster wheel and means for securing the vertical adjustment of the stem and allow

ing of a limited turning movement of the same, as and for the purpose specified. 4th. The combination with the front portion of



the frame and laterally and downwardly-extending legs and means for rigidly securing such legs in position, of the threaded stem for each leg provided with a caster wheel, a sleeve secured within the leg, a rotatable sleeve abutting such inner sleeve and provided with an outwardly-extending lower flange, a cap with an inwardly-extending flange, a slot in the flanged sleeve and a pin extending through the cap into the slot in the flanged sleeve, as and for the purpose specified.

**No. 53,027. Cigarette Machine.** (Machine à cigarettes.)

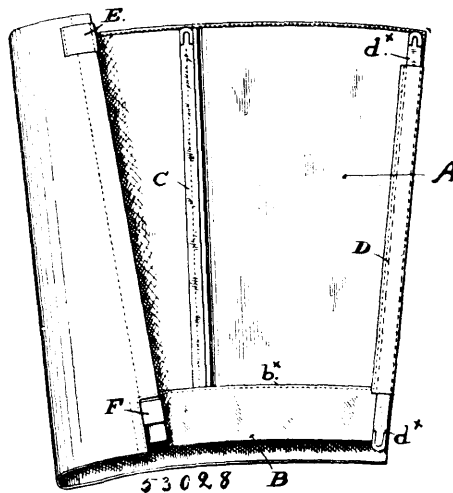


The Bohls Cigarette Machine Company, Richmond, Virginia; assignee of Henry Bohls, San Francisco, California, both in the U.S.A., 27th July, 1896; 6 years. (Filed 15th June, 1896.)

*Claim.*—1st. In a cigarette machine, a feed belt, a top or presser belt above the feed belt, grooved shaping wheels mounted to revolve between the two belts, wrapper feeding devices, a mouth piece adapted to receive the filler rod and wrapper, and partially curve the latter around the rod, scrapers extending from the mouth piece into the grooves of the adjacent shaping wheels to strip the filler rod therefrom and guide it from the mouth piece into the wrapper, folding and pasting devices, a grooved carrier wheel, belts operating therewith for continuing the movement of the continuous cigarette after it has passed the folding and pasting devices, a cutter for severing the continuous cigarette into suitable lengths, and gearing for imparting uniform movement to the co-operating parts, and for timing the cutter with respect to the forward movement of the continuous cigarette, substantially as set forth. 2nd. The combination in a cigarette machine, of a feed belt, a series of pairs of shaping wheels, a top or endless presser belt, compressing jaws arranged above the feed belt and having reciprocating movement to and from each other transversely to the direction of travel of the said feed belt, and a series of flexible scraping blades 42, extending over the edge of the feed belt from opposite sides, and adapted to bring the tobacco to the middle of the said belt, substantially as described. 3rd. In a cigarette machine, filler-forming mechanism comprising grooved shaping wheels and belts as described, a grooved carrier wheel, and a carrier belt 108, adapted to travel in the groove around the greater portion of the periphery of said carrier-wheel, combined with a mouth-piece, and folding and pasting devices located in advance of the mouth-piece, substantially as set forth. 4th. In a cigarette machine, having a filler-forming mechanism comprising grooved shaping wheels and upper and lower belts acting therewith, the combination of the rotating pasting disk 116, a paste-supply trough having a paste-feeding wheel partially immersed and rotating therein, and a paste-carrying endless cord or thread, which is carried over the top of said feed-wheel and arranged to run in contact with the face of the disk 116, substantially as described. 5th. In a cigarette machine, having a filler-forming mechanism comprising grooved shaping wheels and upper and lower belts acting in connection therewith, the combination of a rotating pasting disk and a paste-trough, a paste-feeding wheel partly immersed, and

having rotation, in said trough, a cord or thread arranged to travel over the top of said feeding-wheel clear of the trough and take a change of paste from the said feeding wheel, and guide-pulleys adapted to carry said cord or thread in working contact across the face of said pasting-disk, substantially as described.

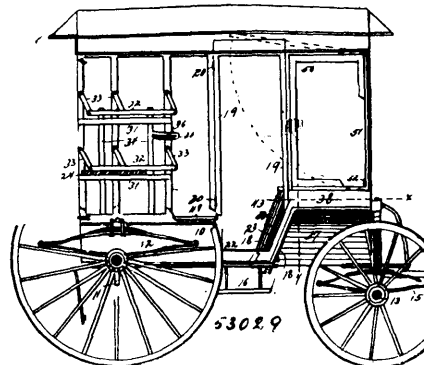
**No. 53,028. Legging.** (Güêtres.)



Charles Fisher, San Francisco, California, U.S.A., 22nd July, 1896; 6 years. (Filed 8th July, 1896.)

*Claim.*—1st. A legging of flexible material open at the side, provided on the inner side with a flap which is attached at the upper edge to the body of the legging, and detached therefrom at the bottom, and having on one perpendicular edge of the opening a stiffening spring the ends of which at the top and at the bottom of the legging are detached from the body, and provided on the opposite-perpendicular edge of the opening with loops or pockets adapted to receive the said detached ends of the spring. 2nd. In a legging, the combination with a body of flexible material open at one side, of an inner flap attached at the top edge to the legging body on the inner side all around, and extending from such line of attachment downward to the bottom edge of the legging and detached at all points around the bottom from the legging body, and means for fastening the edges of the opening together. 3rd. The herein described legging comprising a body of flexible material open at one side, an inner flap attached to the body only at the top edge and adapted for insertion at the bottom edge into the fold of the turned up bottom of the trouser's leg whereby the turned up edge of the trousers in confined between such flap and the surrounding body of the legging all around the bottom, and the longitudinal stiffening springs secured in position to the material of the body, one of said springs being arranged along the perpendicular edge at one side of the opening and having its ends at the top and bottom detached from the body, and the loops or pockets on the opposite side of the opening adapted to receive said ends of the spring and the other spring being placed on the opposite side of the leg.

**No. 53,029. Milk Wagon.** (Wagon à lait.)



John L. Owens, Andrew Monroe Beattie and George McAuley Kistler, all of Charlotte, North Carolina, U.S.A., 27th July, 1896; 6 years. (Filed 8th June, 1896.)

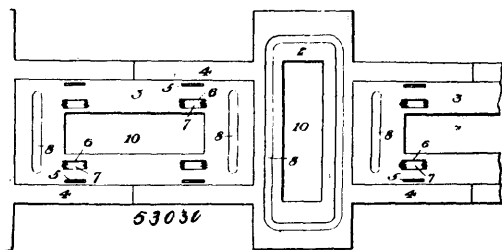
*Claim.*—1st. The combination in a wagon, of a door frame and a central removable portion, the upper portions of the frame being of wood and the lower cross-piece and the lower portion of the front piece being of thin metal, whereby free entrance is obtained level with the floor and flush with the front, substantially as described. 2nd.



The combination in a milk wagon, of a shelf or rack bottom, a perforated plate, a screw securing the plate upon the rack bottom, and springs projecting upward through the plate and extending outward and upward at the sides thereof as bottle holders, substantially as described. 3rd. The combination in a milk wagon, of a shelf or rack bottom, a plate perforated with holes in pairs located at different distances from centre, bottle holding springs to engage the said holes and means for removably securing the plate to the rack bottom, substantially as described. 4th. The combination of a wagon body having uprights and cleats secured horizontally thereto, bars located parallel with the cleats and pitmen pivotally hung to the said uprights and to the said bars, substantially as described, whereby shelves placed upon the cleats and pressed by the bars will be held from bounding and rattling in service. 5th. The combination of a wagon body having uprights and cleats secured thereon, pitmen pivotally hung upon the uprights, bars parallel with the cleats hung upon the pitmen, and vertical strips connecting the parallel bars, substantially as described, whereby all the bars thus connected may be operated by operating one of them. 6th. The combination of a wagon body having upright sides and cleats secured thereon, pitmen hung to the said sides, bars hung upon the pitmen parallel with the cleats, connections between the bars uniting them as a frame and means for holding the said frame in any desired position relative to the cleats, substantially as described. 7th. The combination in a milk wagon of a deck forward raised above the floor of the main body, forward wheels hung to turn sidewise under the said deck, a tank located beneath the deck and between the upper portions of the wheels, and a double casing surrounding the tank, substantially as described, whereby a refrigerator for keeping milk cool is located in otherwise waste space in the wagon. 8th. The combination in a milk wagon in a floor for the main body, a higher deck forward of that floor, forward wheels hung to turn under the deck, a milk tank located beneath the deck and having a faucet projecting into the open space over the said floor, a casing surrounding the tank at a distance therefrom, and an outer wall at a distance from the casing, substantially as described, whereby ice may be packed against the said tank and a dead air space interposed between it and the over air. 9th. The combination in a milk wagon of a floor for the main body, a raised deck forward of the floor, wheels hung to turn beneath the said deck and a refrigerator located beneath the deck and between the wheels, and having side walls curved nearly parallel to the curve of the wheels when turned under the deck, substantially as described. 10th. The combination in a wagon of a body having a cover frame having sides and top portions to receive window sashes, a vertical portion of the frame hinged at its upper end to the top midway thereof to depend therefrom and provided with a fastener for its lower end, and means at the said lower end and in the top to engage the said fastening, substantially as described, whereby the midway portion of the frame may be fastened down in service or fastened up out of service.

**No. 53,030. Bank Note Binder.**

(Lien pour billets de banque.)



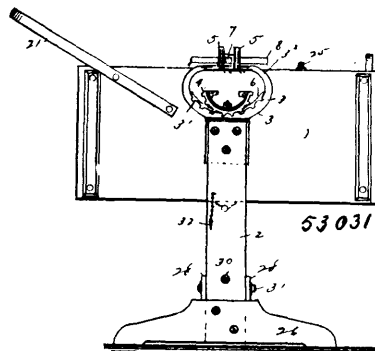
John Thompson Hough, Henry Beiber and Horace Dill Fleming, all of Pittsburg, Pennsylvania, U.S.A., 27th July, 1896; 6 years. (Filed 9th June, 1896.)

*Claim.*—1st. A binder for bank notes, etc., composed of two plates, one plate having arms projecting from opposite lateral edges thereof, and the other plate having slots therein through which the projecting arms may be passed, said arms being flexible and the ends being adapted to be bent down upon the plate through which they pass, so as to securely hold a bundle placed between the plates, substantially as described. 2nd. A binder for bank notes, etc., composed of two plates, one plate having arms projecting from opposite lateral edges thereof, and the other plate having slots therein through which the projecting arms may be passed, said arms being flexible and the ends being adapted to be bent down upon the plate through which they pass so as to securely hold a bundle placed between the plates, said slotted plate having also keeper-slots for receiving the ends of the arms when thus bent down and holding them against displacement, substantially as described.

**No. 53,031. Washing Machine.** (Machine à laver.)

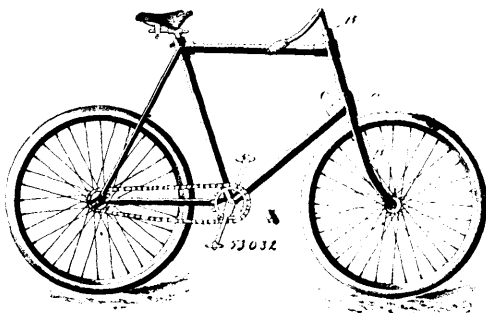
Henry Burkner, assignee of Herman W. Wichman, both of St. Louis, Missouri, U.S.A., 27th July, 1896; 6 years. (Filed 8th July, 1896.)

*Claim.*—In a rocking washing machine, a stationary support, and the toothed racks secured to the support, and provided on one side



with two projections which extend above the box, combined with the rocking box, the toothed rockers secured to the box, the vertical shaft extending through the top of the box, and provided with a pinion at its upper end, and the agitator at its lower end, the pivoted lever provided with a toothed sector at its inner end to engage with the pinion, and having its outer end extended between the two stationary projections, whereby the rocking of the box causes the agitator to be revolved, substantially as shown.

**No. 53,032. Bicycle Lock.** (Serrure de bicyclette.)



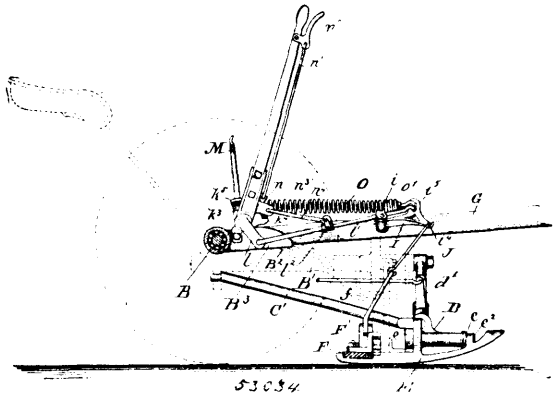
Abraham L. Ruff and Philip G. Smith, both of Dickerson Run, Pennsylvania, U.S.A., 27th July, 1896; 6 years. (Filed 8th July, 1896.)

*Claim.*—1st. An improved bicycle lock adapted to be attached to the member of the frame, and comprising a case capable of such attachment, and the longitudinal sliding bolt carried in said case, and adapted to be projected into engagement with the recess or depression in the steering head of the bicycle, substantially as shown and described. 2nd. In a bicycle lock, a case composed of two parts, each having a longitudinal recess and the longitudinal movable bolt held within said recesses, said bolt having a central enlarged portion, and the forwardly and rearwardly extending reduced portions, substantially as shown and described. 3rd. In a bicycle lock, a case composed of two parts, each having a longitudinal recess, a locking bolt fitting in said recesses, and having the forward and rearward reduced portions, the central cut out portion, the guide pin and the key for operating said bolt, substantially as shown and described. 4th. In a bicycle lock, the combination with the bicycle frame and steering head, of the lock case, composed in two parts, the longitudinal movable bolt, the key, the spring rods, and lock pin, all arranged substantially as shown and described. 5th. In a bicycle lock, the combination with the bicycle frame and steering head, and the lock case composed of two parts, each part being recessed, the longitudinal movable bolt located in said recesses, said bolt being cut out about midway its length, the guide pin and key, the spring rods and locking pins, all arranged substantially as shown and described. 6th. In a bicycle lock, a case composed of the upper and lower sections, said lower section having a longitudinal recess with the depression in the bottom, the guide pin extending across said recess, the key adapted to fit upon said guide pin, the longitudinal movable bolt cut away at the centre to receive the pin, the wards arranged upon said bolt, the member section having a longitudinal recess and supplemental recesses at the side of the main recess, the stop pins and the rods having laterally projecting ends, all arranged substantially as shown and described. 7th. In a bicycle lock, the combination of the case formed in two sections, and recessed as described, the guide pin and key, the locking bolt shaped as described, the spring rods secured to said bolt and bent upon themselves, and having laterally projecting ends, and the lock pins arranged in the locked sections of the case, substantially as shown and described.

**No. 53,033. Insect Powder Distributor.***(Distributeur pour poudres insecticides.)*

Charles Davis Cutts, Fort Fairfield, Maine, U.S.A., 27th July, 1896; 6 years. (Filed 30th May, 1896.)

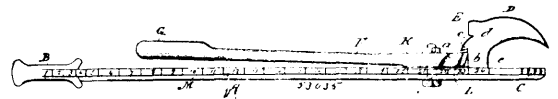
*Claim.*—1st. The herein-described improved insect powder distributor, comprising the conical vessel A containing the powder, the flexible diaphragm C secured to and across the upper portion of said vessel, the pole H supporting the vessel by means of suitable connecting bars, a gear provided with a suitable handle and sustained by said pole, the reciprocating rod E whose lower end is secured centrally to the diaphragm and whose upper end is operated by a crank connected with the gear, the lower screw-threaded end or extension A' rigid with the vessel A, the screw cap P, and the disk or plate R' from which a nozzle extends, said disk or plate being held between said screw cap and the lower end of the extension, substantially as described. 2nd. The herein-described improved insect powder distributor, comprising the conical vessel A containing the powder, the flexible diaphragm C secured to and across the upper portion of said vessel, a handle connected with the vessel, mechanism connected centrally with the diaphragm whereby the latter is vibrated or worked down and up, the screw-threaded portion or extension A' at the lower end of the vessel, the screw cap P upon said portion, the centrally perforated disk or plate R' held between the screw cap and the lower end of said extension, the pipe R extending down from the disk or plate, and the conical spreader S supported by arms connected with said pipe and with its apex centrally under the lower end of the pipe, substantially as set forth.

**No. 53,034. Mowing Machine. (Faucheuse.)**

The Deering Harvester Company, assignee of John F. Stewart, both of Chicago, Illinois, U.S.A., 27th July, 1896; 6 years. (Filed 10th July, 1896.)

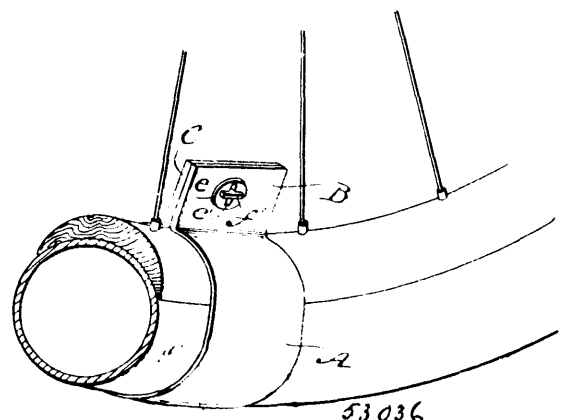
*Claim.*—1st. In a mower, the main frame, the coupling frame pivotally secured thereto, the cutting apparatus pivotally secured to the said coupling frame, an arm extending upward from the stubble-end of the said cutting apparatus, a lever for sustaining and raising the said cutting apparatus, located upon the main frame over the said coupling frame, and a connecting link extending from said lever to the said arm upreaching from the stubble-end of the cutting apparatus, the said lever adapted to move on an axis inclined grassward at its upper end, whereby the direction of stress of said link upon the cutting apparatus relative to the centre of gravity of the same is substantially maintained as the latter travels over uneven ground, substantially as described. 2nd. In a mower, the main frame, the coupling frame pivotally secured thereto, the cutting

apparatus pivotally secured to the said coupling frame, an arm extending upward from the stubble-end of the said cutting apparatus, a spring-actuated lever for sustaining and raising the same located upon the main frame over the said coupling frame, and a connecting link extending from the said spring-actuated lever to the said arm upreaching from the stubble-end of the said cutting apparatus, the said spring-actuated lever adapted to move on an axis inclined grassward at its upper end, whereby the direction of stress of said link upon the cutting apparatus relative to the centre of gravity of the same is substantially maintained as the latter travels over uneven ground, substantially as described. 3rd. In a mower, the main frame, the coupling frame pivotally secured thereto, the cutting apparatus pivotally secured to said coupling frame, an arm extending upward from the stubble-end of the said cutting apparatus, a bell-crank lever for sustaining and raising the same located upon the main frame, over the said coupling frame, a spring connected at one end to one arm of said bell-crank lever and extended over the tongue and its other end secured to the main frame, and a connecting link extending from the said spring-actuated lever to the said arm upreaching from the stubble-end of the cutting apparatus, the said spring-actuated lever adapted to move on an axis inclined grassward at its upper end, whereby the direction of stress of said link upon the cutting apparatus relative to the centre of gravity of the same, is substantially maintained as the latter travels over uneven ground, substantially as described. 4th. In a mower, the main supporting frame, the coupling frame pivoted thereto, cutting apparatus pivotally connected to the coupling frame upon an axis substantially in line with the length of the cutting apparatus, an arm extending from the stubble-end of said cutting apparatus, a lifting spring secured to the main frame of the said machine and mechanism connecting the said arm to the said spring extending diagonally forward from the said arm to the said spring lifting apparatus, substantially as described, whereby the stress of the spring is in part exerted to rock the said cutting apparatus over and forward and thus maintain the latter in the proper position for cutting.

**No. 53,035. Wire-Fence Tool.***(Outil pour clôtures en fil de fer.)*

Henry M. Chipman, Waterbury, Connecticut, U.S.A., 27th July, 1896; 6 years. (Filed 4th June, 1896.)

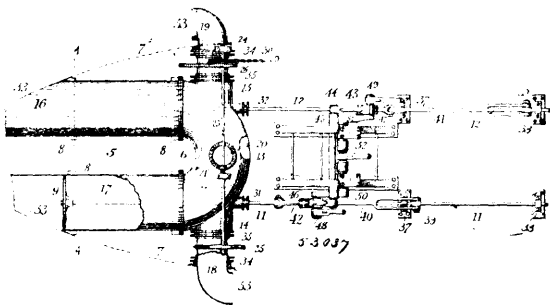
*Claim.* 1st. In a combined tool of the class described, the combination with an operation lever of a clamping and shearing lever hinged thereto, a pointed single prong extending from said lever of an equal length therewith and provided with a striking head E, a clamping space of a varying width between the back of said prong and the corrugated end of the clamping lever, substantially as, and for the purpose specified. 3rd. In a wire-fence tool of the class described, the combination of an operating lever, a series of teeth upon each side of the end of said lever, a pointed prong extending out and forward near the end of the lever and of an equal distance therewith, and provided with a striking head, a clamping lever pivoted to said operating lever, a shearing blade upon each of said levers, a clamp formed between the clamping lever and the before mentioned prong. 3rd. In a wire-fence tool of the class described, the combination with hinged operating levers, of shearing blades secured to each, a hub H upon one of said levers projecting into a socket of the other lever and forming a bearing and provided with a securing belt 1, a series of teeth upon each side of one of said levers, and a prong having a striking edge, as described.

**No. 53,036. Binder for Bicycles. (Lien pour bicycles.)**

James L. Hutchinson, New York, State of New York, U. S. A. 27th July, 1896; 6 years. (Filed 1st June, 1896.)

*Claim.*—1st. A temporary binder comprising a flexible strip having non-flexible flaps upon the two ends thereof, said flaps being provided with a locking device adapted to connect them to each other, substantially as shown and described. 2nd. In a temporary binder for closing punctures in bicycle tires, the combination of the flexible strip and the two non-flexible flaps upon the ends thereof; with a locking device as a means for fastening the said flaps together and retaining the binder upon the tire of the bicycle, substantially as shown and described. 3rd. In a temporary binder for closing punctures in bicycle tires, the combination of the flexible strip having thickened end flaps; with a locking device as a means for fastening the said flaps together and retaining the binder upon the tire of a bicycle, substantially as shown and described.

**No. 53,037. Mechanism for and Mode of Marine Propulsion.** (*Mécanisme et mode de propulsion des vaisseaux.*)

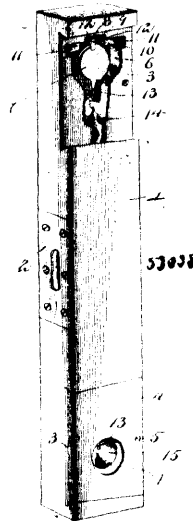


Sidney Lawrence, Melbourne, Victoria, Australia, 27th July, 1896; 6 years. (Filed 6th June, 1896.)

*Claim.*—1st. In mechanism for the propulsion of marine vessels, a U-shaped horizontal tube 6, having members 16, 17, opening towards the rear of the vessel, in combination with wings 14, 15, at the respective sides of the tube head, and jet directors 18, 19, forming the outlets to such wings, such directors being movable so as to have their openings directed ahead or astern, substantially as set forth. 2nd. In mechanism for the propulsion of marine vessels, the combination with the U-shaped tube 6, of valve 13, stops 20, stuffing box 33, gear wheel 21, outside tube 6 on the extension of the spindle of valve 13, and gear wheel 22 on spindle 23, which extends transversely across the vessel and is journalled at 24, substantially as set forth. 3rd. In mechanism for the propulsion of marine vessels, a valve 13, connected by gearing with transverse spindle 23, in combination with spur wheels 25 and 26, sector wheels 27 and 28, sprocket wheel 30 and chain 29, substantially as set forth. 4th. In mechanism for the propulsion of marine vessels, the combination with directors 18, 19, having mouths 53, of stuffing boxes 34 at the skin 7 of the vessel, and stuffing boxes 35 at the inner ends of said directors, sector wheels 27 and 28, spur wheels 25 and 26 on a spindle 23, which is connected by gearing to valve 13, substantially as set forth. 5th. In mechanism for the propulsion of marine vessels, a U-shaped tube 6, having members 16, 17, open valve 13, wings 14, 15, and directors 18, 19, open to the stern, in combination with reciprocating pistons 9, 10, piston rods 11, 12, and stuffing boxes 31 and 32, substantially as set forth. 6th. In mechanism for the propulsion of marine vessels, a U-shaped tube 6, having members 16, 17, closed valve 13, wings 14, 15, and directors 18, 19, open to the bow, in combination with reciprocating pistons 9, 10, piston rods 11, 12, and stuffing boxes 31 and 32, substantially as set forth. 7th. In mechanism for the propulsion of marine vessels, the pistons 9, 10, having piston rods 11, 12, working in guides or bearings 37, 38, and linked by pins 39 to connecting rods 40 and 41, in combination with vibrating arms 42 and 43, journalled on the same axis 44, said arms connected to cranks 50 and 51 on main shaft 52, substantially as set forth. 8th. In mechanism for the propulsion of marine vessels, the vibrating arms 42, 43, journalled at one end on an axis 44, and linked at their other ends to connecting rods 40, 41, in combination with sliding blocks 46, 47, crank pins 48, 49, journalled in said blocks, and cranks 50 and 51 on a main shaft 52, whereby the vibrating arms are adapted to successively impart fast and slow motions to the connecting rods 40 and 41, substantially as and for the purposes set forth. 9th. In mechanism for the propulsion of marine vessels, a main shaft 52, having two cranks fixed diametrically opposite one another, in combination with an axis 44 parallel to shaft 52, and vibrating arms 42, 43, connected to such axis, also connected to said cranks, and also connected to mechanism whereby pistons 9, 10, may be successively reciprocated so as to make fast and slow strokes, substantially as set forth. 10th. In the propulsion of marine vessels, the method of propelling the same consisting in reciprocating two pistons 9, 10, in a tube 6, having members 16, 17, wings 14, 15, and directors 18, 19, in such manner that the strokes of the pistons in the opposite direction to that in which the vessel is to be propelled shall be made more quickly than the return strokes, substantially as set forth. 11th. In the propulsion of marine vessels having a tube 6 with valve 13, members 16, 17, wings 14, 15, and directors 18, 19, the method of propelling the same ahead

consisting in opening valve 13, turning directors 18, 19, so that their mouths shall open towards the stern, and then reciprocating pistons 9, 10, within members 16, 17, rapidly from front to stern and more slowly in the reverse direction, and so that the strokes of one piston in a given direction will be made alternately with the strokes of the other piston in that direction, substantially as set forth. 12th. In the propulsion of marine vessels having a tube 6 with valve 13, members 16, 17, wings 14, 15, and directors 18, 19, the method of propelling the same astern, consisting in closing valve 13, turning directors 18, 19, so that their mouths shall be open towards the bow, and then reciprocating pistons 9, 10, within members 16, 17, rapidly from stern to bow and more slowly in the reverse direction, and so that the strokes of one piston in a given direction will be made alternately with the strokes of the other piston in that direction, substantially as set forth. 13th. The general arrangement and combination of parts of the improved mechanism for marine propulsion, consisting of the parts hereinbefore described and illustrated by the reference figures 6 to 52 on the accompanying drawings.

**No. 53,038. Plumb-Level.** (*Niveau à plomb.*)



Edwin J. Simmons, Eugene, Oregon, U.S.A., 27th July, 1896; 6 years. (Filed 9th June, 1896.)

*Claim.*—1st. In a plumb-level, the combination with the stock, of a plumb-bob or weight arranged within a mortise in said stock, an upwardly extending U-shaped fulcruming-strap on said bob or weight, a transversely disposed hanger bar carrying the fulcrum-pin upon which the same is hung, a depending finger or pointer on said weight, and a stationary finger or pointer arranged within the stock, substantially as specified. 2nd. In a plumb-level, the combination with the stock, of a plumb-bob or weight arranged within a mortise in said stock, an upwardly extending U-shaped fulcruming-strap on said bob or weight, a transversely disposed hanger-bar carrying the fulcrum pin upon which the same is hung, pins or stops for limiting the vibration of said weight, a depending finger or pointer on said weight, and a stationary finger or pointer arranged within the stock, substantially as specified.

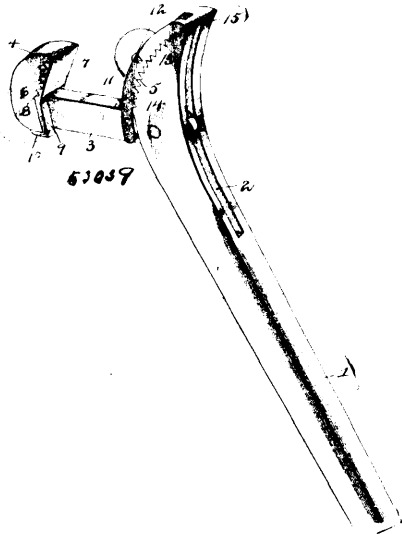
**No. 53,039. Pipe Wrench and Cutter.**

(*Clé à écrou et couteau.*)

Frank A. Whitney and Artemas W. Whitney, Sugar Grove, Illinois, U.S.A., 27th July, 1896; 6 years. (Filed 9th June, 1896.)

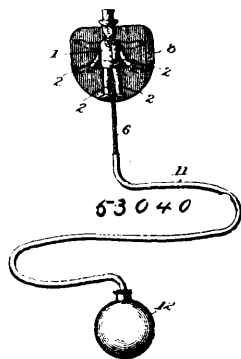
*Claim.*—1st. A combined pipe wrench and cutter, the same comprising a shank having a toothed or serrated operative face and bifurcated as shown, a pivoted jaw having its shank pivotally mounted in the bifurcated end of the main shank, and a revoluble cutting disk mounted in a frame or yoke detachably supported upon the operative face of the main shank or stationary jaw, substantially as described. 2nd. A combined pipe wrench and cutter, comprising a stationary jaw or shank having a bifurcated end and a toothed or serrated operative face, a pivoted jaw hinged to the fixed jaw, a yoke or frame comprising a pair of arms spaced a sufficient distance apart to stride the shank of the pivoted jaw, a rotary cutter disk journalled between said arms, and means for retaining said yoke or frame in position relatively to the fixed jaw or shank, substantially as specified. 3rd. A combined pipe wrench or cutter, comprising a stationary jaw or shank having a bifurcated end and a rounded and toothed or serrated operative face, a pivoted jaw having its shank pivoted within the bifurcated end of the stationary jaw or shank, a yoke or frame consisting of a pair of curved arms toothed or serrated upon their concave faces or edges to engage the teeth or serrations on the main jaw or shank, said arms being spaced a sufficient dis-

tance apart to stride the shank of the pivoted jaw and united to each other by a connecting web and a rotary cutting disk inter-



posed between and journaled in said arms, substantially as and for the purpose specified. 4th. A combined pipe wrench and cutter, comprising a main jaw or shank, a swinging jaw pivoted thereto, a rotary cutting disk detachably connected with the main jaw or shank, and a removable face plate adapted to be applied to the pivoted jaw, said face-plate being provided with a smooth operative face, a toothed or serrated inner face corresponding to and adapted to engage with the toothed or serrated face of the pivoted jaw, and a pair of arms adapted to embrace the shank of the pivoted jaw and provided with hooked or bent ends for engaging the head of the pivoted jaw, whereby said face plate is retained in place, substantially as set forth.

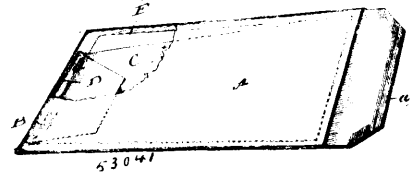
**No. 53,040. scarf Pin.** (*Epingle pour écharpes.*)



Harry V. Ashby, Erie, Pennsylvania, U.S.A., 27th July, 1896; 6 years. (Filed 8th June, 1896.)

*Claim.*—1st. In a scarf pin, the combination with the body-piece fixedly supported upon the pin proper, a movable member or members pivotally connected to the rear of the body-piece, a reciprocating motor supported upon the pin and connected with the movable member or members, and a guard plate located in front of the pin proper and in the rear of said motor and movable members, whereby said members are prevented from engaging with the scarf, substantially as described. 2nd. In a scarf pin, the combination with the pin proper having a passage therethrough, of the body-piece fixedly connected to said pin, members movably connected to the rear of the body-piece, a plunger adapted to reciprocate in the upper end of the pin opening, connections between said plunger and the movable members, and means for increasing and decreasing the air-pressure under the plunger whereby the movable members may be operated, substantially as described. 3rd. In a scarf pin, the combination with the pin proper having an opening therethrough and constituting an air tube, of the body-piece fixedly supported upon the pin, members movably connected to the rear of the body-piece, a plunger adapted to slide in the tubular opening of the pin, and having a collar 10 arranged to rest normally upon the upper end of the pin, connections between said plunger and the movable members, and means for varying the air-pressure in the pin whereby the plunger may be reciprocated, substantially as described.

**No. 53,041. Envelope.** (*Enveloppe.*)



Charles Kelley, Toronto, Ontario, Canada, 27th July, 1896; 6 years. (Filed 8th June, 1896.)

*Claim.*—1st. As an improved article of manufacture, the combination of the inner envelope having a ridged strip at one end, the said end designed to be coated with an insoluble mucilage, and an outer envelope into which said inner envelope is adapted to be inserted and sealed to the inner end of the outer envelope, substantially as shown and described. 2nd. In combination an outer envelope having one end coated with an insoluble mucilage and designed to be stuck to the inner end of an outer envelope, and means for preventing the said mucilaged end being crumpled, substantially as shown and described.

**No. 53,042. Penholder.** (*Porte-plume.*)

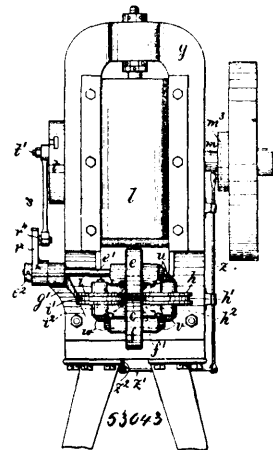


Joseph McCarty and Thomas Craft, both of Pittsburg, Pennsylvania, U.S.A., 27th July, 1896; 6 years. (Filed 8th June, 1896.)

*Claim.*—1st. In a penholder, a feeder having a tongue extending slightly above the line of the body portion thereof, shoulders formed at the juncture of said tongue and feeder, and a slot having an inclined bottom arranged in the feeder and communicating with the reservoir in the holder, substantially as shown and described. 2nd. In a penholder, an ink-reservoir in the holder proper, a feeder having a slot communicating with the said reservoir, a tongue arranged on the outer end of the feeder, a shoulder formed at the junction of said tongue and feeder, said slot having an inclined bottom, as and for the purpose described.

**No. 53,043. Die for Forming Nail Strips.**

(*Etampe pour faire les clous.*)

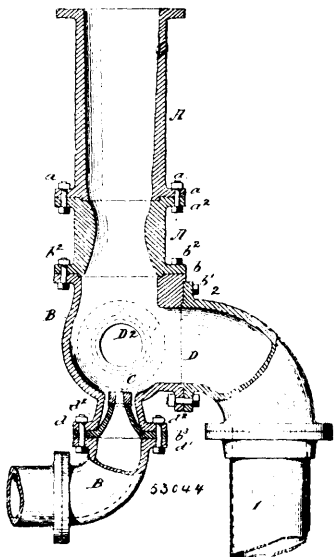


Solomon Marcella Cutter, Boston, Massachusetts, U.S.A., 27th July, 1896; 6 years. (Filed 5th June, 1896.)

*Claim.*—1st. In a machine to form two continuous strips from a metal strip or tape, two series of overlapping or interlocking punches graduated in length in part in the line of the feeding of the metal tape to said punches whereby said tape is separated into two continuous strips, section after section without waste of material, for the purpose set forth. 2nd. In a machine to form two continuous strips from a metal strip or tape, two series of overlapping or interlocking punches graduated in length, in part in the line of the feeding of the metal tape to said punches, and mechanism to reciprocate said punches, whereby said tape is separated into two continuous strips, section after section without waste of material, and said strips are prevented from crippling or breaking, for the purpose set forth. 3rd. In a machine for forming two continuous strips from a metal strip or tape, a series of stationary punches, and a series of reciprocating punches, the latter interlocking or overlapping the former, and being graduated in length, in part in line of the feeding of the tape to said punches, whereby said tape is

separated into two continuous strips, section after section without waste of material, and said strips are prevented from crippling or breaking, for the purpose set forth. 4th. The combination, with two series of interlocking or overlapping punches, to sever a metal strip or tape, into two metal strips, of two comb-shaped clearers, interlocking or overlapping each other, one for each series of punches and the teeth of the clearers entering the recesses formed by said series of punches, to remove the strips from the punches after they have been punched, for the purpose set forth. 5th. The combination, with two series of interlocking or overlapping punches, to sever a metal strip or tape in two continuous metal strips, one of said series remaining stationary, and the other series reciprocating, of a comb-shaped reciprocating clearer, for the series of stationary punches and a comb-shaped stationary clearer for the reciprocating punches, each clearer interlocking or overlapping the other clearer, and the teeth of each clearer entering the recesses formed by its respective series of punches, to remove the metal strips from the punches after it has been punched, for the purpose set forth. 6th. A series of stationary punches of even length, and a series of reciprocating graduated punches, each series interlocking or overlapping the other to sever a metal strip or tape into two continuous strips without waste and preventing breaking, kinking, or crippling said strips combined with a reciprocating clearer for the stationary punches, and a stationary clearer for the reciprocating punches and mechanism to reciprocating punches and clearer, for the purpose set forth. 7th. In a punching machine for the formation of continuous nail strips, the combination with a frame to support the parts of the machine, a driving shaft, a series of stationary punches mounted in the frame, a reciprocating head, a series of punches mounted in said head, said series of punches being graduated in length, in part as described and overlapping or interlocking each other, and connecting mechanism between said reciprocating head and driving shaft to reciprocate said head, of an upper and lower feed roll, side feeding rolls, gears upon the shaft of the feed rolls to gear them together, and mechanism between said feed rolls and the driving shaft of the machine to intermittingly rotate said rolls to feed a metal strip or tape to the action of said punches, section after section, whereby two continuous nail strips are formed without waste, and are prevented from breaking, kinking, or crippling, as set forth. 8th. In a punching machine for the formation of continuous nail strips, the combination with a frame to support the parts of the machine, a driving shaft, a series of stationary punches mounted in the frame, a reciprocating head, a series of punches mounted in said head, said series of punches being graduated in length in part as described, and overlapping or interlocking each other, and connecting mechanism between said reciprocating head and the driving shaft to reciprocate said head, of an upper and lower feed roll, side feeding and forming rolls to upset a head forming portion on a metal strip or tape fed thereby, gears upon the shaft of the feeding and forming rolls to gear them together, and mechanism between said feed rolls, forming rolls, and the driving shaft of the machine to intermittingly rotate said rolls, to feed a metal strip or tape to the action of said punches, and upset a head forming portion thereon, section after section, whereby two continuous nail strips having projecting head forming portions, are formed without waste, and are prevented from breaking, kinking or crippling, as set forth.

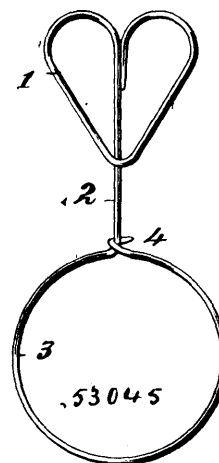
**No. 53,044. Base Chamber for Elevators.**  
(*Base pour éleveurs hydrauliques.*)



George H. Evans, Oroville, California, U.S.A., 28th July, 1896; 6 years. (Filed 29th May, 1896.)

*Claim.*—1st. The combination with the elevator pipe, of the water ejector pipe for forcing material through the elevator pipe, a base chamber or seat located between the elevator pipe and the water pipe, and two or more suction openings cut within the base chamber or seat through which the spoils enter the interior of the base chamber or seat in a divided condition and commingle with the jet of water from the ejector pipe. 2nd. In a base chamber or seat for hydraulic elevator, provided with two or more suction openings for receiving the spoil and delivering the same within the interior thereof in a divided condition in order that it may readily be comminuted by the stream of water delivered therein from the ejector pipe before being delivered to the elevator pipe. 3rd. In a hydraulic elevator, the combination with the elevator pipe of the throat connected to the lower end thereof, the base chamber or seat secured to the throat, the main suction opening cut therein, the side or auxiliary suction opening formed in the base chamber or seat (through which suction openings the spoils enter the base chamber or seat in a divided condition), the ejector nozzle located within the contracted mouth of the base chamber or seat, and the ejector pipe connected to the end of the contracted mouth, the water from which is forced through the nozzle into the interior of the base chamber or seat and commingles with and disintegrates the spoil delivered into the said chamber through the suction openings before forcing the spoil into the elevator pipe.

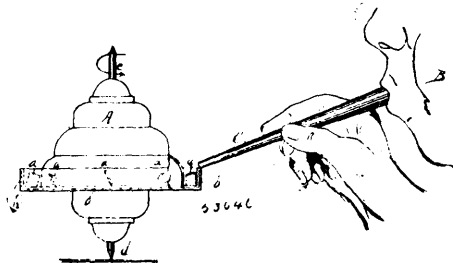
**No. 53,045. Game Holder.** (*Crochet pour poisson et gibier.*)



McCluer H. Parker, Houston, Texas, U.S.A., 28th July, 1896; 6 years. (Filed 29th May, 1896.)

*Claim.*—1st. The herein described device for stringing and holding fish or game, made of spring wire, having a handle at its upper end and a loop at its lower end, and means for locking and unlocking the ends of said loop, substantially as set forth. 2nd. The herein described device for stringing and holding fish or game, made of a single piece of spring wire, formed with a handle at its upper end and having a stem depending downwardly therefrom, a loop upon the lower end of said stem and a pointed hook at the outer end of said loop, the same adapted to be passed through the fish or game to be supported and to be held in place by attaching the same to the lower end of said stem, substantially as set forth.

**No. 53,046. Pneumatic Top.** (*Toupie pneumatique.*)

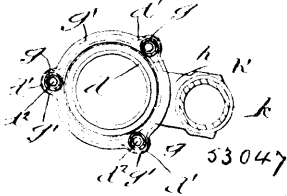


Eugene Gregory, Detroit, Michigan, U.S.A., 28th July, 1896; 6 years. (Filed 23rd May, 1896.)

*Claim.*—1st. A pneumatic top provided with radially projecting external wings *a, a*, substantially as and for the purposes described. 2nd. A pneumatic top provided with an annular, horizontally projecting flange *o*, and attached thereto radially projecting wings *a, a*, substantially as and for the purposes described. 3rd. A pneumatic top provided with radially projecting wings *a, a*, circumferential, horizontally projecting flange *o*, and a confining wall or bulwark *b*, substantially as and for the purposes described. 4th. A pneumatic top provided with radially projecting and backwardly inclined

wings *a, a*, substantially as and for the purposes described. 5th. The combination of a top provided with radially projecting wings or flanges *a, a*, with a pneumatic tube or mouthpiece to direct the air under pressure against said wings, substantially as and for the purposes described.

**No. 53,047. Cistern. (Citerne.)**



Richard Ramsay Mitchell, Montreal, Quebec, Canada, 28th July, 1896; 6 years. (Filed 2nd May, 1896.)

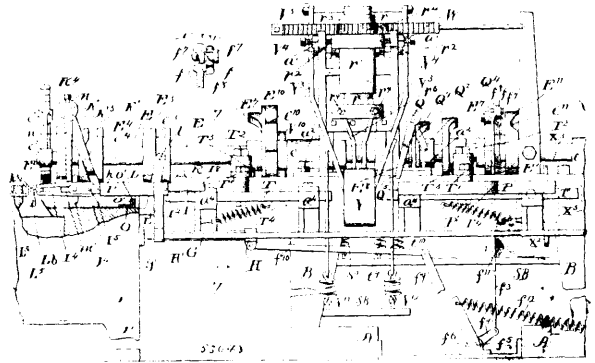
*Claim.*—1st. In combination with the discharge device of a cistern, a pipe connected at one end to the discharge passage of such discharge device at a point adjacent to the water inlet thereof, and the other end of said pipe being extended to communicate with the open air, for the purpose set forth. 2nd. In combination with the discharge pipe of a cistern, a lateral hollow extension from said discharge pipe forming a passage connected at one end to the interior of said discharge pipe, and provided with an opening at the other end thereof, a vertical pipe connected at its lower end to said opening, a float adapted to rest upon and close the upper end of said vertical pipe and a pipe of less diameter than said vertical pipe and connecting the interior thereof with the open air, and means for opening and closing said discharge pipe, for the purpose set forth. 3rd. In a discharge device for cisterns, a float for automatically closing the opening to the discharge passage before the level of the water reaches such opening, for the purpose set forth. 4th. In combination with the pipe forming the discharge passage of a cistern, a float adapted to close said discharge passage and a suitably guided frame or cage adapted to enclose and loosely retain said float, for the purpose set forth. 5th. In combination with the pipe forming the discharge passage of a cistern, a float adapted to close said discharge passage and a frame or cage formed of a series of hollow spindles adapted to enclose and loosely retain said float, such spindles being connected together at their upper ends by a frame piece and at their lower ends by an annulus adapted to engage said float and said hollow spindles being adapted to take over and be guided by a series of spindles carried by said discharge pipe, and means for limiting the upward movement of said frame or cage, for the purpose set forth. 6th. In combination with the pipe forming the discharge passage of a cistern, an air supply to said discharge pipe, a float adapted to close said discharge passage and a frame or cage formed of a series of hollow spindles adapted to enclose and loosely retain said float, such spindles being connected together at their upper ends by a frame piece and at their lower ends by an annulus adapted to engage said float and said hollow spindles being adapted to take over and be guided by a series of spindles carried by said discharge pipe, and means for limiting the upward movement of said frame or cage, for the purpose set forth. 7th. In combination with the pipe forming the discharge passage of a cistern, a float adapted to close said passage, and a second passage having its lower end communicating with said discharge passage and the upper end thereof free. 8th. In combination with the pipe forming the discharge passage of a cistern, a float adapted to close said passage, and a second passage having its lower end communicating with said discharge passage and the area of the opening in the upper end thereof variable, for the purpose set forth. 9th. In combination with the discharge device of a cistern, a pipe connected at one end to the discharge passage of such discharge device at a point adjacent to the water inlet thereof, and the other end of said pipe being extended to communicate with the open air, and having a stopper for the outer end of said pipe and containing a diminutive air vent, for the purpose set forth. 10th. In combination with the pipe forming the discharge passage of a cistern, a frame or cage formed of a series of hollow spindles adapted to enclose and loosely retain said float, such spindles being connected together at their upper ends by a frame piece and at their lower ends by an annulus adapted to engage said float and said hollow spindles being adapted to take over and be guided by a series of spindles carried by said discharge pipe, and means for limiting the upward movement of said frame or cage, a lateral hollow extension from the discharge pipe forming a passage connected at one end to the interior of said discharge pipe, and provided with an opening at the other end thereof, a vertical pipe connected at its lower end to said opening, a float adapted to rest upon and close the upper end of said vertical pipe and a pipe of less diameter than said vertical pipe and connecting the interior thereof with the open air, for the purpose set forth.

**No. 53,048. Chain-making Machine.**

(Machine à faire des chaînes.)

Philander Hayden Standish, St. Mary's, Ohio, U.S.A., 28th July, 1896; 6 years. (Filed 18th March, 1895.)

*Claim.*—1st. In a chain-making machine, in combination, a heating-furnace, a suitably actuated carriage adapted to convey the



open-ended link from said furnace to and insert the same into the last link added to the chain, the suitably actuated conveyer or carrier for carrying the link-band to be heated into or through the heating-chamber of the heating-furnace, and the suitably operated link-blank delivering mechanism, substantially as set forth. 2nd. In a chain-making machine, in combination, a suitably actuated carriage adapted to convey the heated open-ended link-blank from the heating-furnace to and insert the same into the last link added to the chain, a suitably actuated carrier or conveyer for feeding the link-blank into or through the heating-furnace, a rotating-shaft, a cam or cam-wheel operatively mounted upon said shaft, and the link-blank-delivering mechanism arranged to be actuated by the aforesaid cam or cam-wheel, substantially as set forth. 3rd. In a chain-making machine, in combination, a suitably actuated carriage adapted to convey the heated open-ended link-blank from the heating-furnace to and insert the same into the last link added to the chain, a suitably actuated carrier or conveyer for feeding the link-blanks into or through the heating-furnace, a suitably actuated reciprocating rod or bar terminating at one end in an upright slotted plate or fork for effecting the delivery of the heated link-blank from the link-blank holder or carrier to the aforesaid link-carriage, and the arrangement of parts being substantially as set forth. 4th. In a chain-making machine, in combination, the device for holding the link last added to the chain in position to receive a new link, a track extending lengthwise of the machine forward of said chain-holding device, and a suitably actuated carriage mounted on said track for conveying the open-ended chain-link from the heating-furnace and inserting the same into the link last added to the chain, substantially as set forth. 5th. In a chain-making machine, in combination, the device for properly holding the last link added to the chain in position for the reception of a new link, a track extending lengthwise of the machine forward of said chain-holding device, a suitably actuated carriage mounted on said track and adapted to convey the heated link-blank from the heating-furnace and insert the same into the last link added to the chain, a rotating shaft, a cam or cam-wheel operatively mounted on said shaft and mechanism operatively connected with said carriage and arranged to be actuated by the cam or cam-wheel, and thereby reciprocate the carriage in the one direction, and one or more springs for reciprocating said carriage in the opposite direction, substantially as set forth. 6th. In a chain-making machine, in combination, a track extending lengthwise of the machine, a suitably actuated carriage mounted on said track, tongs carried by said carriage, said tongs being adapted to receive an open-ended link-blank with its open end lowermost, and being rotatably supported by the carriage, the shank of the tongs having a laterally-projecting lug or member, a stationary incline located in the path of said laterally-projecting lug or member and adapted to actuate said lug or member and thereby give the link-holding tongs a partial turn, the device for engaging the depending link and actuating the latter into a horizontal position with its open end presenting outwardly, and the arrangement of parts being such that the link shall be caused to assume said horizontal position preparatory to the aforesaid partial turn given to the link-holding tongs, substantially as set forth. 7th. In a chain-making machine, in combination, the device for holding the link last added to the chain, a track located forward of said chain-holding device and extending longitudinally of the machine, a suitably reciprocated carriage mounted on said track, tongs turnably supported by the carriage and adapted to receive an open-ended heated link with the open end lowermost, the suitably actuated tongs-turning device, the suitably actuated tongs-opening device, the device for actuating the link into a horizontal or approximately horizontal position preparatory to the partial turn given to the tongs, and the mechanism for closing the jaws of the tongs preparatory to the actuation of the link into a horizontal position, the arrangement of parts being substantially as set forth. 8th. In a chain-making machine, in combination, the device for holding the link last added to the chain in position to receive a link for welding, a track located forward of said chain-holding device and extending longitudinally of the machine, a suitably actuated carriage mounted on said track, a rotating shaft, tongs turnably supported by the



carriage and adapted to receive the open-ended heated link with the open end presenting downwardly, the suitably actuated tongs-turning device, the tongs-opening device, a cam or cam-wheel operatively mounted on the aforesaid shaft and arranged to actuate said tongs-opening device, the device for actuating the open-ended link into a horizontal or approximately horizontal position with the open end of the link presenting outwardly preparatory to the partial turn given to the tongs, the tongs-closing device, a cam or cam-wheel operatively mounted on the aforesaid shaft and arranged to actuate said tongs-closing device, and the arrangement of parts being substantially as and for the purpose set forth. 9th. In a chain-making machine, the combination, with the link-carriage for conveying the heated open-ended link to the point at which said link is connected with the chain, said link-carriage being provided with tongs or jaws for holding the link, the latter being received upon the lower jaw with its open-end presenting downwardly, of a stationary upright plate or member located in the path of the link carriage and adapted to engage and lift the open end of the link into a horizontal or approximately horizontal position, substantially as set forth. 10th. In a chain-making machine, the combination, with a carriage for conveying the heated open-ended link to the point at which it is inserted into the link last added to the chain, said carriage being provided with a turnable tongs adapted to hold the open-ended link in a horizontal position, of a stationary incline for giving said tongs a partial turn to bring the link into the proper position for insertion into the link last added to the chain, and a spring for turning the tongs back into its normal position, substantially as set forth. 11th. In a chain-making machine, the combination, with the supporting-frame, a track extending lengthwise of and rigid with said frame, a link-carriage mounted upon and adapted to reciprocate endwise of said track, of a rotating shaft, a cam operatively mounted on said shaft, an oscillating shaft located below and arranged at right angles to the aforesaid cam-shaft, a lever fulcrumed upon said oscillating shaft, an oscillating lever provided with a roller or projection adapted to be engaged by said cam, a link operatively connecting the cam-actuated lever with the lever of the oscillating shaft aforesaid, a lever and link or connecting rod operatively connecting the link-carriage with said oscillating shaft, said cam-actuated mechanism being adapted to reciprocate the link-carriage in one direction, and a spring or springs for reciprocating said carriage in the opposite direction, substantially as set forth. 12th. In a chain-making machine, the combination, with a pair of reciprocating bars located in the same plane, and adapted to engage the free extremities of the open end of the link and butt, lap, close or squeeze the same together, of suitably operated levers for actuating said bars to cause the latter to perform their functions, and springs acting to retain said squeezing bars in their normal position, substantially as set forth. 13th. In a chain-making machine, the combination, with a rotating shaft, bars for simultaneously engaging the free extremities of the open end of the link and butting, lapping or closing or squeezing the same together, of cams or cam-wheels operatively mounted on said shaft and arranged to actuate said bars to cause the latter to perform their function, substantially as set forth. 14th. In a chain-making machine, in combination, the device for holding the chain, a suitably actuated reciprocating carriage for conveying the open-ended heated link to and inserting the same into the link last added to the chain, a track for said carriage, suitably operated reciprocating bars located rearward of said track and adapted to butt, lap, close or squeeze the free extremities of the open end of the link together, the suitably-operated mechanism for swinging the chain-holding device outwardly into position for the connection of the open-ended link with the chain, and for swinging said device inwardly in position between the squeezing-bars, and the arrangement of parts being substantially as and for the purpose set forth. 15th. In a chain-making machine, the combination with the device for holding the chain, of the mechanism operatively connected with and adapted to swing said chain-holding device in opposite directions, a rotating shaft, a cam or cam-wheel operatively mounted on said shaft and arranged to actuate said swinging mechanism in one direction, and a spring for actuating the same in the opposite direction, substantially as set forth. 16th. In a chain-making machine, the combination with the supporting frame, upright housings or standards rigid with said frame, a chain-holding device suitably supported between said standards or housings, of an anvil located below said chain-holding device in position to receive the link to be welded, a suitably operated swinging hammer having two arms pivotally secured to said housings or standards, and arranged to strike the end of the link to be welded, substantially as set forth. 17th. In a chain-making machine, the combination with an anvil and chain-holding device for holding the link last added to the chain against the anvil in position for welding, of a hammer for striking the link upon the anvil, a rotating shaft, a cam or cam-wheel operatively mounted on said shaft, lever-mechanism operatively connected with said hammer and arranged to be actuated by said cam or cam-wheel to swing the hammer in the one direction, and a spring or springs for actuating the hammer in the opposite direction, substantially as set forth. 18th. In a chain-making machine, the combination with the chain-holding device, the pair of suitably operated squeezing-bars located a suitable distance rearward of the point at which the open-ended link is connected with the chain, said squeezing-bars being adapted to close the open end of the link, and the mechanism for swinging the chain-holding device from the point at which the link is connected with the chain into position to bring the newly

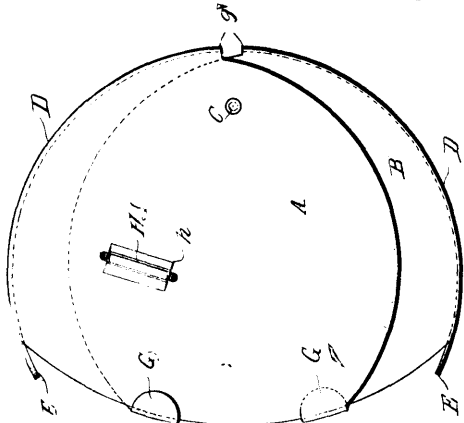
added link between the squeezing-bars, substantially as set forth. 19th. In a chain-making machine, the combination with the swinging chain-holding device, and a pair of suitably operated squeezing-bars located a suitable distance rearward of the point at which the open-ended link is connected to the chain, of a rotating cam-shaft, a cam operatively mounted upon the shaft, lever-mechanism operatively connected with the chain-holding device and actuated by said cam to swing the chain-holding device into position to receive the new link, and a spring for actuating said lever-mechanism to swing the chain-holding device from said position into position between the squeezing-bars, substantially as set forth. 20th. In a chain-making machine, the combination with the swinging chain-holding device, a pair of squeezing-bars, and the mechanism for actuating said bars to engage the open-ended link last added to the chain and close the open end of the same, of suitable mechanism for engaging and elevating the chain to bring the newly added link into holding engagement by the chain-holding device after the operating of the aforesaid bars, substantially as set forth. 21st. In a chain-making machine, the combination with the swinging chain-holding device, a pair of squeezing-bars, the mechanism for actuating said bars to engage the open-ended link last added to the chain and close the open end of the same, of a suitably operated lifting-bar capable of being inserted in one of the links of the chain to bring the newly added link into holding engagement by the chain-holding device after the operation of the aforesaid bars, substantially as set forth. 22nd. In a chain-making machine, the combination with the swinging chain-holding device, a pair of squeezing-bars, the mechanism for actuating said bars to engage the open-ended link last added to the chain and close the open end of the same, of a bar *t* capable of being inserted into one of the links of the chain, a rotating cam-shaft *E*, a cam *E'* operatively connected with the shaft, the mechanism operatively connected with the aforesaid bar and adapted to be actuated by said cam to cause the bar to engage the respective link of the chain, a cam *E''* operatively mounted upon said shaft, the mechanism operatively connected with the aforesaid bar and adapted to be actuated by said cam to elevate or lift the bar, and springs acting to retain said mechanism in their normal position, substantially as set forth. 23rd. In a welded chain-making machine, in combination, the chain-holding device, reciprocating bars for engaging the open end of the link last added to the chain and closing said end, an anvil located rearward of said squeezing-bars and provided with a female die for receiving the link thus operated upon preparatory to the welding operation, and the mechanism for swinging the chain-holding device to bring the link operated upon from its position between the squeezing-bars into engagement with the female die of the anvil, substantially as set forth. 24th. In a welded chain-making machine, the combination of the supporting frame, upright standards or housings rigid with said frame, the upright chain-holding device pivotally supported by and between said housings or standards, suitably operated reciprocating bars *T* adapted to engage and close the open end of the link last added to the chain and located rearward of the point at which the link is connected with the chain, an anvil located rearward of said bars and provided with a female die for receiving said link preparatory to the welding operation, the mechanism for engaging and lifting the chain to cause the link to be welded to be firmly held by the chain-holding device, the mechanism for swinging the chain-holding device from the point at which the link is connected with the chain into position between the squeezing-bars and from said position to the female die, a suitably operated hammer for welding the closed end of the link, and the parts being arranged and timed substantially as and for the purpose set forth. 25th. In a welded chain-making machine, the combination of the supporting frame having a pair of upright standards or housings *a*, a chain-holding device located between and supported from said standards, an anvil located a suitable distance below said chain-holding device, and a hammer for co-operating with the anvil in welding the links, the hammer having a pair of upwardly and rearwardly extending arms pivoted to the upper portion of the aforesaid standards or housings, of a rotating cam-shaft, a suitable cam operatively mounted upon said shaft and mechanism operatively connected with the hammer-arms and arranged to be actuated by said cam to elevate the hammer from the anvil, and a spring or springs for co-operating with gravity in actuating the hammer to deliver its blows, substantially as set forth. 26th. In a welded chain-making machine, the combination of the supporting frame having a pair of upright standards or housings *a*, a chain-holding device suitably supported from the upper end of said housings or standards, an anvil located a suitable distance below the chain-holding device, a hammer adapted to co-operate with the anvil in welding the links and having upwardly or rearwardly extending arms pivoted to the aforesaid standards or housings, the lever mechanism for elevating or lifting the hammer from the anvil, a rotating shaft and a cam on said shaft and arranged to actuate said mechanism, and said cam being shaped to cause the hammer to deliver several successive blows, substantially as set forth. 27th. In a welded chain-making machine, the combination with a chain-holding device turnably supported, anvil and hammer for welding the link and the mechanism for actuating the hammer to deliver successive blows, of a lever *W*<sup>2</sup>, a rotating shaft, a cam on said shaft for operating said lever, a pinion operatively connected with the chain-holding device and a rack meshing with said pinion and operatively connected with the aforesaid lever, the parts being so arranged and timed that the chain-holding device is given a one-



half turn between successive blows of the hammer, substantially as set forth. 28th. In a chain-making machine, the combination with the supporting frame having a pair of upright standards or housings, the barrel, cylinder or tube *z*, revolvably supported from and between said housings or standards, said tube, barrel or cylinder, at its lower end, being provided with jaws for holding the link to be welded, an anvil and hammer for welding the link last added to the chain, the mechanism for actuating said hammer to deliver successive blows, the mechanism for giving the barrel, tube or cylinder a one-half turn between successive blows of the hammer, substantially as set forth. 29th. In a welded chain-making machine, the combination with a chain-holding device, anvil and suitably operated hammer for welding the link, the mechanism for swinging the chain-holding device laterally to disengage the link to be welded from the anvil to enable said link to be turned preparatory to the delivery of the next succeeding blow of the hammer, substantially as set forth. 30th. In a welded chain-making machine, the combination with the chain-holding device, anvil and suitably operated hammer for welding the link, and the mechanism for giving the chain-holding device a one-half turn between successive hammer blows, of the mechanism for swinging the chain-holding device laterally to disengage the link to be welded from the anvil to enable said link to be turned preparatory to the delivery of the next succeeding blow of the hammer, and springs acting to retain said chain-holding device in position with the link to be welded in engagement with the anvil, substantially as set forth. 31st. In a welded-chain-making machine, wherein the welding operation is at right angles, or approximately at right angles, to the position in which the link last added is held for the reception of the next succeeding link blank, the combination with the chain-holding device and the mechanism for swinging said device laterally into position for the connection of the link blank, of the mechanism for giving the chain-holding device a quarter turn, or approximately a quarter turn, preparatory to the reception of a new link by the link last welded, substantially as set forth. 32nd. In a chain-making machine, wherein the welding operation is at right angle, or approximately at right angles, to the position in which the link last added to the chain is held for the reception of the next succeeding link blank, the combination with the chain-holding device and the mechanism for swinging said device laterally into position for the connection of the link blank, of the mechanism for giving the chain-holding device a quarter turn, or approximately a quarter turn, preparatory to the connection of the link blank with the chain, and comprising a rotating shaft, a cam operatively connected with said shaft, a pinion operatively connected with the chain-holding device, a rack meshing with said pinion, and rack-operating mechanism arranged to be actuated by the aforesaid cam, substantially as set forth. 33rd. In a welded chain-making machine, the combination with the supporting frame, chain-holding device, anvil and hammer for welding the links, the mechanism for giving the chain-holding device a one-half turn between successive blows of the hammer, the mechanism for swinging the chain-holding device laterally between successive hammer blows to permit the link being welded to be turned as required to present opposite sides alternately for receiving the hammer blows, the roller-bearing sliding plate or block *X*<sup>6</sup>, the upright roller-bearing lever *W*<sup>2</sup> fulcrumed to said block or plate, the gear operatively connected with the chain-holding device, a rack meshing with said gear and operatively connected with the aforesaid lever, a rotating shaft *E* and cam operatively connected with said shaft and engaging the roller of and thereby being adapted to actuate the aforesaid lever to give the chain-holding device a one-half turn, the shaft *X* intergearing with the aforesaid shaft *E*, substantially as indicated, and the cam *X*<sup>2</sup> operatively connected with shaft *X* and engaging the roller of and being thereby adapted to actuate the aforesaid roller-bearing sliding block or plate, the parts being arranged and timed, substantially as set forth.

**No. 53,049. Can Opener.**

(Machine à ouvrir les boîtes métalliques)

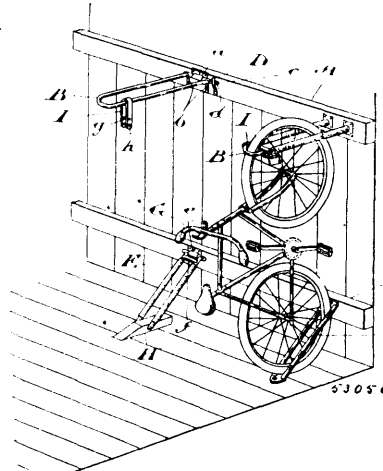


53049

William Millen, New York, State of New York, U.S.A., 28th July, 1896; 6 years. (Filed 30th April, 1896.)

*Claim.*—1st. The device herein described, for use in cutting out the heads of cans, the same being composed of two pivotally connected disks or plates, each of which are provided on one side with a depending flange or rim, said device being constructed as herein described and as shown in Fig. 1 and 2 of the drawings. 2nd. A device for cutting out the heads of cans, and for projecting the hand, which consists of two similar disks or plates, which are partially circular in form and which are pivotally connected at one side and which are provided with a segmental flange or rim, and said plates being provided opposite their pivotal connection each with a clamp or jaw which is adapted to overlap the other, substantially as shown and described.

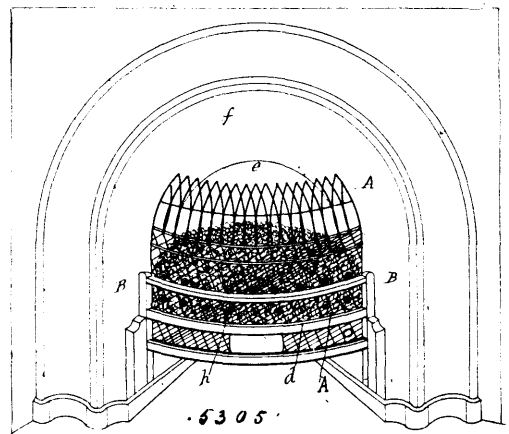
**No. 53,050. Bicycle Stall. (Stalle de bicyclette.)**



Edward Spencer Piper, Toronto, Ontario, Canada, 28th July, 1896; 6 years. (Filed 27th April, 1896.)

*Claim.*—1st. In a device of the class specified, the combination with a bicycle stood on end, of the loop *B* connected to a bar or wall at such a height that the wheel of the bicycle may be inserted within it, substantially as and for the purpose specified. 2nd. As a bicycle stall, the loop *B* connected to the bar *A* in combination with the U-shaped hasp *I* and pin *g*, the ends of the hasp having holes for the passage of a padlock or chain, substantially as and for the purpose specified. 3rd. As a bicycle stall, the loop or bars *E*, the loop *B* connected to the bar *A*, in combination with the U-shaped hasp *I* and pin *g*, the ends of the hasp having holes for the passage of a padlock or chain, substantially as and for the purpose specified.

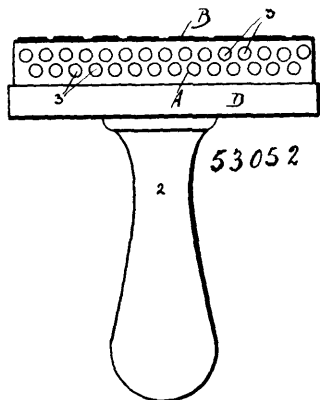
**No. 53,051. Fire Place or stove. (Foyer ou poêle.)**



Wilson Alfred Hughes, London, Middlesex, England, 28th July, 1896; 6 years. (Filed 23rd March, 1896.)

*Claim.*—1st. An attachment for grates consisting of a skeleton or open frame enclosing the whole front of the fire place up to the register, substantially as described with reference to the drawings. 2nd. An attachment for grates consisting of a skeleton or open frame enclosing the whole front of the fire place up to the register, and of tubes secured to the said frame and adapted to convey air into the mass of the fuel, substantially as described with reference to the drawings. 3rd. A fire frame arranged substantially as described with reference to the drawings. 4th. A fire frame arranged and operating substantially as and for the purpose set forth.

**No. 53,052. Cushions for Stamps.**  
(*Coussinet pour étampes.*)



John Patrick Cooke, Omaha, Nebraska, U.S.A., 28th July, 1896; 6 years. (Filed 2nd March, 1896.)

*Claim.*—1st. In a cushion stamp, the combination with a suitable base of a cushion, said cushion being of elastic material and provided with a series of open-ended passages, and a stamp die secured to said elastic cushion, said open-ended passages extending in a plane parallel to that of the die sheet, all substantially as and for the purpose set forth. 2nd. In a cushion stamp, the combination with a suitable base of a cushion, said cushion being of an elastic material and provided with one or more tiers of open-ended passages, and a die secured to said elastic cushion, said open-ended passage extending in a plane parallel to that of the die, all substantially as and for the purpose set forth. 3rd. In a cushion stamp, the combination with the base, D, of the elastic cushion, A, provided with the openings, 3, 3, and the die, B, all substantially as and for the purpose set forth. 4th. As a new article of manufacture, an elastic cushion, said cushion being provided with a series of open-ended passages, all substantially as and for the purpose set forth.

**No. 53,053. Method of Producing Photo-Lithographing Transferring Plates.** (*Méthode de production de plaques de transfert lithographiques.*)



Thomas Knowles, London, Ontario, Canada, 28th July, 1896; 6 years. (Filed 22nd February, 1896.)

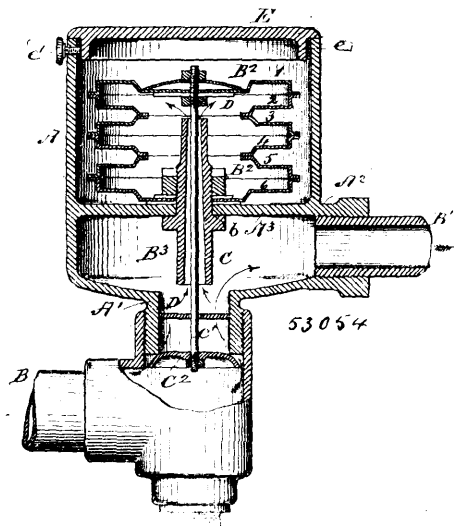
*Claim.*—1st. The method herein described of producing a photo-lithographing plate for transferring, consisting in first coating one surface of the plate with a sensitive material, then placing upon such sensitive material a positive plate taken from the negative of the photograph, exposing the same to the light, so that the parts of the sensitized material exposed become hard and the parts protected by the dark lines soft, then washing with warm water to remove the soft parts and finally applying a suitable acid into the crevices or recesses as and for the purpose specified. 2nd. A photo-lithographing printing plate having walled crevices formed therein corresponding with the engraving to be printed, designed to be filled with the litho ink, as and for the purposes specified.

**No. 53,054. Gas Regulator.** (*Régulateur de gaz.*)

Ernest J. Verrue, San Francisco, California, U.S.A., 28th July, 1896; 6 years. (Filed 3rd December, 1895.)

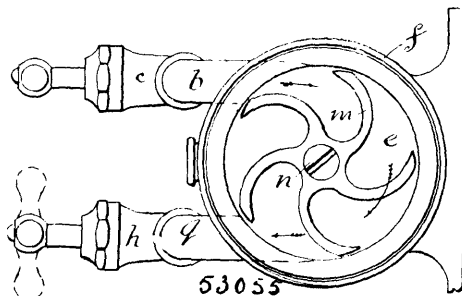
*Claim.*—In a gas regulator, the combination with an outer casing having its interior divided into an upper regulator chamber and a

lower gas chamber, the lower chamber being formed with a gas outlet-opening and a gas inlet-opening, of the expansionable gas bellows



located in the upper chamber, the sleeve projecting vertically through the partition of the chamber and extending within the gas bellows to within a short distance of the top thereof, the lower end of the sleeve extending within the gas chamber, said sleeve being provided with a vertical opening, the valve stem working through the vertical opening of the sleeve and being connected at its upper end to the expansionable gas bellows, a valve secured to the lower end of the valve stem which controls the gas inlet-opening of the gas chamber, and a cut off valve secured to the upper portion of the valve stem which engages with the upper end of the hollow sleeve when the expansionable bellows becomes compressed its full distance.

**No. 53,055 Filter.** (*Filtere.*)



Adolph Davis, Montreal, Quebec, Canada, 28th July, 1896; 6 years. (Filed 9th December, 1895.)

*Claim.*—1st. A filter having an annular dirt accumulating chamber at its receiving end, an inlet thereto arranged tangentially thereof, an agitating device for stirring up such dirt, and the valve controlled waste outlet therefrom also arranged tangentially thereof, through which the dirt can be driven by the incoming water. 2nd. A filter having a dirt accumulating chamber at the base thereof, a turbine wheel located within such chamber, an inlet thereto and a valve controlled outlet therefrom disposed tangentially of said wheel whereby the latter may be operated by the flow of the water to stir up any accumulated dirt, for the purpose set forth. 3rd. A filter having an annular dirt accumulating chamber at the base thereof immediately contiguous to the filtering body, an inlet to such chamber and a valve controlled outlet therefrom, both inlet and outlet being disposed tangentially thereof, and a turbine wheel as mounted in said chamber, substantially as and for the purpose set forth.

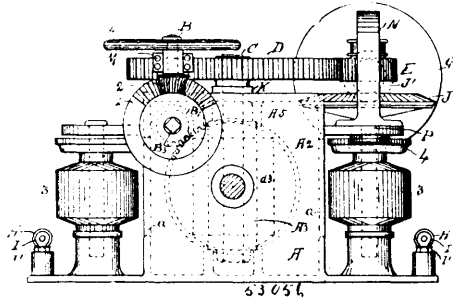
**No. 53,056. Rail Bending Machine.**  
(*Machine à courber les rails.*)

George Edward Smith, Sherbrooke, Quebec, Canada, 28th July, 1896; 6 years. (Filed 20th December, 1895.)

*Claim.*—1st. In a power machine for bending to a desired curve, rails for street railways and in which three rolls perform the duty, the combination with two gearless and non-driven non-adjustable rolls actuated only by the friction of the rail under treatment and with an intermediate and adjustable bending roll, of a bracket M, supporting a short shaft B, its hand wheel and a bevel gear 2, the short shaft B<sup>2</sup>, its bevel gear 1, and pinion B<sup>1</sup>, the screw A<sup>1</sup> and its gear A<sup>2</sup>, and the cross-head A<sup>3</sup>, carrying the said intermediate

bending roll, all substantially as and for the purposes described. 2nd. In a power machine adapted for bending rails for street railways and

equi-distant from each of said rolls and mounted on a vertical power driven shaft, driven by power and serving as the only feeding roll,



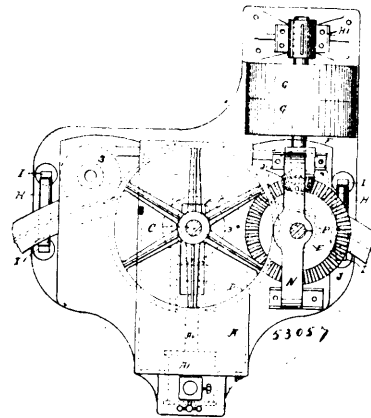
in which the middle roll only is driven, the combination with the screw carrying the adjusting gear  $A^2$  and the cross-head which supports the middle roll serving as the only driven and real feeding roll, of the short shaft carrying a pinion B, a bevel gear I, and a handle L, and the short shaft B, carrying a hand wheel  $B^2$ , and a pinion 2, the combination serving to allow the cross-head and its middle roll to be rapidly adjusted by the handle in commencing the adjustment, and to be finally adjusted by the hand wheel when the pressure of the middle roll given by the screw begins to bear upon the rail. 3rd. In combination with the frame of the machine, a bridge tree secured thereto, the horizontal shaft F, carrying the bevel gear  $J^1$ , and supported in a bearing in one of the legs of the bridge tree, the vertical shaft P, supported in a bearing in the top of the same bridge tree and carrying the pinion E and bevel gear J, which engages with the gear  $J^1$ , the gear D and adjustable driven shaft C, all substantially as and for the purposes described.

**No. 53,057. Rail Bending Machine.**

(Machine à courber les rails.)

George Edward Smith, Sherbrooke, Quebec, Canada, 28th July, 1896; 6 years. (Filed 20th December, 1895.)

Claim.—1st. In a rail bending machine, the combination with the two non-adjustable vertical rolls, and with a middle or bending roll



a hydraulic jack connected with and serving to control the position of such shaft and its roll, as and for the purpose hereinbefore set forth. 2nd. In combination with the two non-driving and non-adjustable vertical rolls, the adjustable power driven shaft C, and its rail feeding roll  $3^*$ , the guides  $A^5$  in the frame, the cross-head  $A^4$ , and a hydraulic ram serving to adjust the only feeding roll  $3^*$ , to give the required degree of pressure needed to bend the rail, as and for the purpose hereinbefore set forth. 3rd. In a machine adapted for bending street railway rails to a curve, and for delivering the bent rails therefrom in a horizontal plane, the combination of two rolls each on a vertical gearless non-adjustable shaft, a hydraulic jack, a middle bending roll on a power driven vertical shaft mounted in a cross-head, adjustable in horizontal guides and connected with, and controlled as to its position and pressure by the hydraulic jack, a power driven gear on the shaft of such bending roll, a horizontal power shaft, and intermediate bevel gears for actuating such driven gear, all substantially as and for the purpose hereinbefore set forth.

CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO  
THE FOLLOWING PATENTS.

4406. W. McINTOSH, 2nd term of No. 36,920, from the 4th July, 1896. Reed Organ, July 2nd, 1896.
4407. ROBERT EDWARD PHILLIPS and ERNEST RICHARD SHIPTON, 3rd term of No. 24,434, from the 6th July, 1896. Brooch or Badge, July 4th, 1896.
4408. EDWARD WILKES RATHBUN, 2nd term of No. 37,036, from the 23rd July, 1896. Wall for Buildings, July 4th, 1896.
4409. MARSHALL R. WYNN and PATRICK B. MARTIN, 2nd term of No. 36,976, from the 15th July, 1896. Oyster Bag, July 6th, 1896.
4410. WILLIAM MILLAR DEUTSCH, 3rd term of No. 28,165, from the 9th December, 1897. Filter, July 6th, 1896.
4411. JOHN WESLEY HYATT, 2nd term of No. 33,047, from the 5th December, 1896. Process of Cleansing Granular Filter Beds, July 6th, 1896.
4412. ADAM DUNN and FRED DOUGLAS PALMER, 2nd term of No. 36,949, from the 10th July, 1896. Rake, July 8th, 1896.
4413. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 36,973, from the 14th July, 1896. Steam Heating System, July 10th, 1896.
4414. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 36,974, from the 14th July, 1896. Car Heating Apparatus, July 10th, 1896.
4415. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 36,996, from the 16th July, 1896. Car Heating Apparatus, July 10th, 1896.
4416. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 36,998, from the 16th July, 1896. Temperature Regulator, July 10th, 1896.
4417. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 36,999, from the 16th July, 1896. Temperature Regulator, July 10th, 1896.
4418. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 37,000, from the 16th July, 1896. Hose or Pipe Couplings, July 10th, 1896.
4419. THE CONSOLIDATED CAR HEATING COMPANY, (assignee), 2nd term of No. 37,051, from the 24th July, 1896. Steam Muffler, July 10th, 1896.
4420. HENRY WATKEYS, 2nd term of No. 36,984, from the 15th July, 1896. Valve for Steam Cylinders, July 13th, 1896.
4421. CHARLES ROBERT CLARKE TICHBORNE, ALFRED EDWARD DARLEY, MARMA DUKE FRANCIS PURCELL and SAMUEL GEOGHEGAN, 2nd term of No. 37,082, from the 29th July, 1896. Method of and Appliances for the Collection and Utilization of the Products of Fermentation, July 13th, 1896.
4422. WILLIAM BENNETT RICKMAN, 3rd term of No. 24,535, from the 20th July, 1896. Method of and Apparatus for Lighting Railway Trains with Gas, July 16th, 1896.
4423. WILLIAM BENNETT RICKMAN, 3rd term of No. 24,535, from the 20th July, 1896. Method of and Apparatus for Lighting by Gas, July 16th, 1896.
4424. EDWARD LLOYD PEASE, 2nd term of No. 37,058, from the 24th July, 1896. Apparatus for Controlling Gas Holders, July 17th, 1896.
4425. ADAM DUNN, SELENA DIETRICH and FRED DOUGLAS PALMER, 2nd term of No. 36,949, from the 10th July, 1896. Rake, July 17th, 1896.
4426. THOMAS McAVITY AND SONS, (assignee), 2nd term of No. 37,794, from the 14th November, 1896. Ball Cock, July 17th, 1896.
4427. THOMAS WILLIAM WORSDELL, 3rd term of No. 24,614, from the 31st July, 1896. Steam Engine, July 21st, 1896.
4428. ALEXANDER McDUGALL, 2nd term of No. 37,047, from the 23rd July, 1896. Tow Boat, July 22nd, 1896.
4429. THE I. B. KLEINERT RUBBER COMPANY, (assignee), 2nd term of No. 37,040, from the 23rd July, 1896. Bustle, July 23rd, 1896.
4430. ROBERT LOGGIE, 2nd term of No. 37,105, from the 1st August, 1896. Can Soldering Machine, July 23rd, 1896.
4431. WILLIAM GEORGE GLENDINNING, 2nd term of No. 37,086, from the 29th July, 1896. Medicinal Compound, July 24th, 1896.
4432. SOPHRONIA TAMNY LEWIS, 3rd term of No. 24,576, from the 28th July, 1896. Dress Chart, July 24th, 1896.
4433. BERNARD LAUTH, 3rd term of No. 24,674, from the 7th August, 1896. Method of Reducing Steel, July 25th, 1896.
4434. PHILIP M. SHARPLES, 2nd term of No. 37,201, from the 25th August, 1896. Centrifugal Lubricator, July 27th, 1896.
4435. PHILIP M. SHARPLES, 2nd term of No. 37,647, from the 21st October, 1896. Liquid Separator, July 27th, 1896.
4436. THE CROCKER WHEELER ELECTRIC MOTOR COMPANY, (assignee), 2nd term of No. 37,072, from the 28th July, 1896. Dynamo Electric Machine, July 27th, 1896.
4437. THE CROCKER WHEELER ELECTRIC MOTOR COMPANY, (assignee), 2nd term of No. 37,073, from the 28th July, 1896. Electric Dynamos, July 27th, 1896.
4438. CHARLES LAFOREST MORSE, 2nd term of No. 37,519, from the 2nd October, 1896. Valve Rescating Machine, July 27th, 1896.
4439. CARTER AND COMPANY, (assignee), 2nd term of No. 37,087, from the 30th July, 1896. Memorandum Book, July 28th, 1896.
4440. PER PERSSON OLSSON, 2nd term of No. 37,205, from the 26th August, 1896. Knitting Indicator, July 31st, 1896.



## TRADE - MARKS

Registered during the month of July, 1896, at the Department of Agriculture--  
Copyright and Trade-Mark Branch.

5680. THE ENGLISH DIASTASIC MALT EXTRACT COMPANY, LIMITED, Mistle, County of Essex, England. General Trade Mark, 2nd July, 1896.
5681. THE CANADA PAINT COMPANY, LIMITED, Montreal, Que. Paint Oil, 2nd July, 1896.
5682. THE CANADA PAINT COMPANY, LIMITED, Montreal, Que. Driers and Japans, 2nd July, 1896.
5683. ALEXANDER C. BATES, Cleveland, Ohio, U.S.A. A Liquid Coating, 2nd July, 1896.
5684. GEO. A. MACBETH COMPANY, Pittsburg, Pennsylvania, U.S.A. Globes, Shades and Light enclosures, 3rd July, 1896.
5685. H. A. LOZIER AND COMPANY, Toronto Junction, Ont. Bicycles and Appurtenances and Accessories thereto, 3rd July, 1896.
5686. J. A. BLAIS, Lévis, Que. Cigares, 4 juillet 1896.
5687. HEBER PLEWES AND EDMUND B. PLEWES, London, Ont., trading as WILLIAM PLEWES. Flour, 6th July, 1896.
5688. ISAAC WASHINGTON BIRDSEY AND THOMAS FRANCIS SOMERS, New York, N.Y., U.S.A., trading as BIRDSEY, SOMERS AND COMPANY. Corsets, 6th July, 1896.
5689. EZRA THOMPSON, 16 Colwick Road, Nottingham, England. Chemical Substances prepared for use in medicine and pharmacy, 6th July, 1896.
5690. THE GURNEY TILDEN COMPANY, LIMITED, Hamilton, Ont., Manufacturing Scales under the name and style of THE GURNEY SCALE COMPANY. Scales, 6th July, 1896.
5691. ERNEST JOSEPH MOSS, Foochow, China. Tea, 6th July, 1896.
5692. } JOHN ALEXANDER McLAREN, Perth, Ont. Whisky, 7th July, 1896.  
5693. }
5694. CONRAD W. SCHMIDT, Carpenter's Road, Stratford, Essex, England. Varnishes, 9th July, 1896.
5695. ALBERT EDWARD MUNSON, Carberry, Manitoba. Pills, 9th July, 1896.
5696. THE KENTORA BREWERY COMPANY, LIMITED, Deering Street, Nottingham, England. A non-intoxicating effervescent botanic beverage, 10th July, 1896.
5697. LEOPOLD ISIDORE NEUMANN NORMAN, 3 East India Avenue, London, England. Brewing Syrup, 10th July, 1896.
5698. } THE A. M. C. MEDICINE COMPANY, Montreal, Que. Patent Medi-  
5699. } cines, 10th July, 1896.
5700. GEORGE I. WILSON, Vancouver, B.C. Canned Salmon, 14th July, 1896.
5701. BESSON AND COMPANY, LIMITED, 198 Euston Road, London, England. Wind Musical Instruments, 15th July, 1896.
5702. H. W. DORKEN, Montreal, Que. Hardware, such as Awls, Bits, Bolts, etc., 18th July, 1896.
5703. THOMAS CARLYLE AND JOHN MARK CARLYLE, 20 Portland Street, Aston, Birmingham, Warwickshire, England, trading as THOMAS CARLYLE. Buttons, Buckles, Clasps, Dress fasteners, etc., made of precious metal or imitations thereof, 18th July, 1896.
5704. THOMAS CARLYLE AND JOHN MARK CARLYLE, 20 Portland Street, Aston, Birmingham, Warwickshire, England, trading as THOMAS CARLYLE. Buckles, Clasps, Dress fasteners, etc., made of ordinary metal, 18th July, 1896.
5705. THOMAS CARLYLE AND JOHN MARK CARLYLE, 20 Portland Street, Aston, Birmingham, Warwickshire, England, trading as THOMAS CARLYLE. Buttons of all kinds other than those of precious metals or imitations thereof, 18th July, 1896.

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5706. GEORGE LOUGHEED DAVIS, Toronto, Ont. Confectionery or Pop-corn,  
21st July, 1896.
5707. } J. AND J. COLMAN, 108 Cannon Street, London, and Norwich, England.  
5708. } Mustard, 21st July, 1896.  
5709. }
5710. HOFFMANN, TRAUB AND COMPANY, 184 Grenzacherstrasse, Basle,  
Switzerland. A Pharmaceutical Product for healing or curing  
Wounds, 29th July, 1896.
5711. THE LAKE OF THE WOODS MILLING COMPANY, LIMITED,  
Keewatin, District of Algoma, Ont. Flour, 29th July, 1896.



# COPYRIGHTS

Entered during the month of July, 1896, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

8579. MASSEY'S MAGAZINE, JUNE, 1896. The Massey Press, Toronto, Ont., 2nd July, 1896.
8580. WINTER'S CHURCH CHOIR RECORD. Chas. A. Winter, Preston, Ont., 2nd July, 1896.
8581. THE CIRCUIT GUIDE—AUTUMN ASSIZES, 1896. By G. A. Kingston, Toronto, Ont., 2nd July, 1896.
8582. LOVELY ISABELLA, WON'T YOU TELL A FELLOW? Words and Music by Walter Dauphin. Arranged by Aug. H. Meyer. Whaley, Royce & Co., Toronto, Ont., 2nd July, 1896.
8583. SHE'S THE DAUGHTER OF OFFICER PORTER. (Song and Refrain.) Words by M. E. Rourke. Music by Geo. Schleiffarth. Whaley, Royce & Co., Toronto, Ont., 2nd July, 1896.
8584. SUNDAY NIGHT IN LOVER'S LANE. (Song and Chorus.) Words by Walter H. Ford. Music by John W. Bratton. Whaley, Royce & Co., Toronto, Ont., 2nd July, 1896.
8585. BELL TELEPHONE COMPANY OF CANADA (LTD.), OTTAWA EXCHANGE, SUBSCRIBERS' DIRECTORY, JULY, 1896. The Bell Telephone Company of Canada. (Ltd.), Montreal, Que., 3rd July, 1896.
8586. ONTARIO ASSIGNMENTS ACT, WITH NOTES. By R. S. Cassels. 2nd Edition. The Carswell Co. (Ltd.), Toronto, Ont., 4th July, 1896.
8587. WHEELING BY MOONLIGHT. (Two-step, for Piano.) By T. B. Echel. A. Cox & Co., Toronto, Ont., 6th July, 1896.
8588. CUTHBERT'S ARITHMETIC EXERCISE BOOK, No. 1. (For use in First Book Classes.) The Copp, Clark Co. (Ltd.), Toronto, Ont., 6th July, 1896.
8589. FIRST STEPS IN COMPOSITION, EXERCISE BOOK No. 1. By Hutton & Leigh. (For use in First Book Classes.) The Copp, Clark Co. (Ltd.), Toronto, Ont., 6th July, 1896.
8590. PHYSICAL SCIENCE NOTE BOOK. (For Class Use with High School Physical Science, Parts I and II.) The Copp, Clark Co. (Ltd.), Toronto, Ont., 6th July, 1896.
8591. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, JULY 4, 1896. The Mail Printing Co., Toronto, Ont., 6th July, 1896.
8592. ORIGINAL AND INBRED SIN. By Rev. R. C. Horner, B.O., Ottawa, Ont., 7th July, 1896.
8593. THE MANITOBA REPORTS, VOLUME X. The Law Society of Manitoba, Winnipeg, Man., 7th July, 1896.
8594. GRANDE MARCHE LAURIER. Composée par Eva Plouf, Montréal, Qué, 8 juillet 1896.
8595. McPHILLIPS MAP OF WINNIPEG, TOWN OF ST. BONIFACE AND VICINITY, MANITOBA. Robert Charles McPhillips, Winnipeg, Man., 8th July, 1896.
8596. PROWSE'S HOTEL CASH BOOK. George Keech Prowse, Windsor, Ont., 8th July, 1896.
8597. THE BRAVEST OF THE BRAVE, OR WITH PETERBOROUGH IN SPAIN. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 9th July, 1896.
8598. THE CAT OF BUBASTES: A TALE OF ANCIENT EGYPT. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 9th July, 1896.

8599. FOR NAME AND FAME, OR THROUGH AFGHAN PASSES. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 9th July, 1896.
8600. ST. GEORGE FOR ENGLAND: A TALE OF CRESSY AND POITLERS. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 9th July, 1896.
8601. THE CANADIAN MAGAZINE, JULY, 1896. The Ontario Publishing Co. (Ltd.), Toronto, Ont., 9th July, 1896.
8602. GAGE'S PRACTICAL SYSTEM OF VERTICAL WRITING, NUMBERS 1 TO 8. The Educational Book Co., Toronto, Ont., 10th July, 1896.
8603. CANADIAN SAVAGE FOLK, THE NATIVE TRIBE OF CANADA. By John Maclean, M.A., Ph.D. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 10th July, 1896.
8604. McALPINE'S SAINT JOHN CITY DIRECTORY FOR 1896-97. Thomas A. McAlpine, St. John, N.B., 10th July, 1896.
8605. BY RIGHT OF CONQUEST, OR WITH CORTEZ IN MEXICO. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 11th July, 1896.
8606. FOR THE TEMPLE: A TALE OF THE FALL OF JERUSALEM. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 11th July, 1896.
8607. TRUE TO THE OLD FLAG: A TALE OF THE AMERICAN WAR OF INDEPENDENCE. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 11th July, 1896.
8608. MASSEY'S MAGAZINE, JULY, 1896. The Massey Press, Toronto, Ont., 13th July, 1896.
8609. STEVENSON'S ALPHABETIC AND NUMERAL CHART. R. B. Stevenson, Listowel, Ont., 13th July, 1896.
8610. THE DELINEATOR: A JOURNAL OF FASHION, CULTURE AND FINE ARTS, AUGUST, 1896. The Butterick Publishing Company, New York, N.Y., U.S.A., 14th July, 1896.
8611. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 11TH JULY, 1896. The Mail Printing Company, Toronto, Ont., 14th July, 1896.
8612. THE SEATS OF THE MIGHTY, BEING THE MEMOIRS OF CAPTAIN ROBERT MORAY, SOMETIME AN OFFICER IN THE VIRGINIA REGIMENT AND AFTERWARDS OF AMHERST'S REGIMENT. By Gilbert Parker. Theodore W. Gregory, Toronto, Ont., 14th July, 1896.
8613. TORQUIL. A Scandinavian Dramatic Legend. In 2 Acts. Libretto by Edward Oxenford. Music by Charles A. E. Harriss. Whaley, Royce & Co., Toronto, Ont., 16th July, 1896.
8614. HERE'S TO THE HEALTH OF MOTHER. Words by Fred. C. Vorhauer. Music by Aug. H. Meyer. Whaley, Royce & Co., Toronto, Ont., 16th July, 1896.
8615. I KNOW SOME ONE WHO'S THINKING OF ME. Words and Music by Dave Marion. Arranged by Aug. H. Meyer. Whaley, Royce & Co., Toronto, Ont., 16th July, 1896.
8616. I LOVE NOBODY, NOBODY LOVES ME. Words and Music by Sim Williams. Arranged by Aug. H. Meyer. Whaley, Royce & Co., Toronto, Ont., 16th July, 1896.
8617. SHE ALWAYS DRESSED IN BLACK. (Song and Chorus.) Words by Walter H. Ford. Music by John W. Bratton. Whaley, Royce & Co., Toronto, Ont., 16th July, 1896.
8618. THE MONTE CARLO GIRLS. Words by Fred. C. Vorhauer. Music by Will A. Vorhauer. Whaley, Royce & Co., Toronto, Ont., 16th July, 1896.
8619. LITANY OF THE BLESSED VIRGIN. (In C.) Composed by Adèle LeMaitre, Toronto, Ont., 16th July, 1896.
8620. DICTIONNAIRE DE NOS FAUTES CONTRE LA LANGUE FRANÇAISE. Par Raoul Rinfret, Montréal, Qué., 16 juillet 1896.

8621. BELL TELEPHONE COMPANY OF CANADA (LIMITED), HAMILTON AND DUNDAS EXCHANGES, SUBSCRIBERS' DIRECTORY, ONTARIO DEPARTMENT, JULY, 1896. The Bell Telephone Company of Canada (Limited), Montreal, Que., 16th July, 1896.
8622. THE BATTLE OF QUEENSTON HEIGHTS. (Original Drawing.) The Toronto Lithographing Co., Toronto, Ont., 21st July, 1896.
8623. ARTS SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 18th JULY, 1896. The Mail Printing Co., Toronto, Ont., 21st July, 1896.
8624. AMERICANS ABROAD. (March.) By Wm. C. G. Wright. Whaley, Royce & Co., Toronto, Ont., 21st July, 1896.
8625. FASHIONS. (An Illustrated Monthly Journal for Canadian Women. Vol. 1. No. 9. Toronto, July, 1896.) D. I. Barnett, Toronto, Ont., 22nd July, 1896.
8626. L'ILE D'ORLÉANS. (Notes sur son Etendue—Ses Premiers Etablissements—Sa Population—Les Mœurs de ses Habitants—Ses Productions.) (Euvre posthume de M. l'Abbé L. E. Bois. Augustin Côté, Québec, Qué., 22 juillet 1896.
8627. BUSINESS HINTS. Gordon, Mackay & Co., Toronto, Ont., 23rd July, 1896.
8628. FIRST STEPS IN COMPOSITION, EXERCISE BOOK Nos. 2 and 3. By Hutton & Leigh. (For use in Junior Second Book Classes.) The Copp, Clark Co. (Ltd.), Toronto, Ont., 23rd July, 1896.
8629. AN IDEAL HEAD. (Painting.) Julian Ruggles Seavey, Hamilton, Ont., 23rd July, 1896.
8630. GUITARE. Caprice pour Piano, par C. Chaminade. Op. 32. The Anglo-Canadian Music Publishers' Association (Ltd.), London, Eng., 24th July, 1896.
8631. LES SYLVAINS. Pour Piano, par C. Chaminade. Op. 60. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 24th July, 1896.
8632. ART SUPPLEMENT OF THE DAILY MAIL AND EMPIRE, TORONTO, SATURDAY, 25th JULY, 1896. The Mail Printing Company, Toronto, Ontario, 25th July, 1896.
8633. THE LIFE AGENT'S MANUAL. (Fourth Edition.) Compiled by J. D. Houston. R. Wilson Smith, Montreal, Quebec, 27th July, 1896.
8634. LAURIER. Valse Mignonne, pour Piano. Par Max Bachmann, Montréal, Québec, 27 juillet 1896.
8635. CHARLESBOURG: MÉLANGES HISTORIOGRAPHIQUES. Par Joseph Trudelle, Québec, Qué., 27 juillet 1896.
8636. TABLEAU DES PORTRAITS ET MONUMENTS HISTORIQUES DE CHARLESBOURG. Joseph Trudelle, Québec, Qué., 27 juillet 1896.
8637. A. B. C. HANDBOOK TO HALIFAX, N. S. (Carnival Souvenir.) Arthur E. Jubien, Halifax, N. S., 27th July, 1896.
8638. LA MORENA. (Caprice Espagnol.) Pour Piano, par C. Chaminade. Op. 67. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 28th July, 1896.
8639. TOCCATA. Pour Piano, par C. Chaminade. Op. 39. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 28th July, 1896.
8640. CANADIAN MAGAZINES AND SOCIETY PAPERS. The Canadian Advertising Agency, Toronto, Ont., 29th July, 1896.
8641. BUSTE DE L'HONORABLE WILFRID LAURIER. J. M. C. R. Le May, Montréal, Qué., 29 juillet 1896.
8642. CYCLE OF PRAYER OF THE GENERAL MISSIONARY SOCIETY, THE WOMAN'S MISSIONARY SOCIETY, EPWORTH LEAGUES AND SUNDAY SCHOOLS OF THE METHODIST CHURCH, CANADA. (Leaflet.) Annie L. Ogden, Toronto, Ont., 31st July, 1896.
8643. ARABESQUE. Pour Piano, par C. Chaminade. Op. 62. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 31st July, 1896.

8644. AUTOMNE. Grande Etude de Concert. Pour Piano, par C. Chaminade. Op. 35. The Anglo-Canadian Music Publishers' Association (Ltd.) London, England, 31st July, 1896.
8645. MINUETTO. Pour Piano, par C. Chaminade. Op. 23. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 31st July, 1896.
8646. STUDIO. Pour Piano, par C. Chaminade. Op. 66. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 31st July, 1896.
8647. THE NEW PREMIER. Two-Step, Jersey or Cycle. (New Dance.) Composed by Prof. J. F. Davis, Toronto, Ont., 31st July, 1896.
8648. PA-SIC-WASIS. (Photo.) Geraldine Moodie, Battleford, N.W.T., 31st July, 1896.
8649. KAH-ME-YO-KI-SICK-WAY AND HIS STEP-SON. (Photo.) Geraldine Moodie, Battleford, N.W.T., 31st July, 1896.
8650. KAH-ME-YO-KI-SICK-WAY. (Photo.) Geraldine Moodie, Battleford, N.W.T., 31st July, 1896.
8651. CREE SUN DANCE, NEAR BATTLEFORD, N.W.T. (Photo.) Geraldine Moodie, Battleford, N.W.T., 31st July, 1896.
8652. McALPINES HALIFAX DIRECTORY, 1896. Hezekiah M. McAlpine, Halifax, N.S., 31st July, 1896.