

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.
- Additional comments /  
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

# The Canadian Patent Office

## RECORD

Vol. XIX.—No. 11.

NOVEMBER, 1891.

{ Price in Canada \$2.50 per An.  
United States - \$2.50 "

### INVENTIONS PATENTED.

NOTE.—Patents are granted for 15 years. The term of years for which the fee has been paid, is given after the date of the patent.

#### No. 37,709. Mould for Leg-sockets for Stoves. (*Appareil à mouler les socles de pattes pour poêles*)

Lazard Kahn, Hamilton, Ohio, joint inventor with and assignee of James McDermott, Louisville, Kentucky, both in U.S.A., 2nd November, 1891; 5 years.

*Claim.*—1st. In a device for moulding leg-sockets for stoves, a chillore having dove-tailed edges and flanges at the base of the dove-tails, and adapted for use substantially as set forth. 2nd. In a device for moulding leg-sockets for stoves, a chillore having two flanged and dove-tailed side-bars connected by a cross-bar and adapted for use substantially as set forth. 3rd. In a device for moulding leg-sockets for stoves, a chillore having two flanged and dove-tailed side-bars connected by a depressed cross-bar, and adapted for use substantially as set forth. 4th. In a device for moulding leg-sockets for stoves, a chillore having dove-tailed and flanged side edges, and having a projecting prong, and adapted for use substantially as set forth.

#### No. 37,710. Thill Coupler.

(*Armon de limoniere.*)

Samuel Mirfield and William Hewes Oliphant, both of Toronto, Ontario, Canada, 2nd November, 1891; 5 years.

*Claim.*—1st. In the thill coupling, the combination of the thill plate having a forward, upward and rearward projection, a concave recess formed beneath the rearward projection, the round end bar of the loop of the thill iron fitting into the same and held in position by a block with a concave bottom *f*, and forward projection *f'*, which extends below the top edge of the side bar, *D*<sup>1</sup>, and end loop of the thill iron when the shaft is in its normal position, as and for the purpose specified. 2nd. The combination of the thill plate having a forward, upward and rearward projection, a concave recess formed beneath the rearward projection, the round end bar of the loop of the thill iron fitting into the same and held in position by a block with a concave bottom, *f*, and forward projection, *f'*, which extends below the top edge of the side-bar *D*, and the set screw, *G*, placed in the rearward projection, *a*<sup>1</sup>, and so adjusted as to exert a pressure on the block, *F*, as and for the purpose specified. 3rd. The combination of the thill plate having a forward, upward and rearward projection, the recess beneath the rearward projection *a*<sup>1</sup>, the thill iron, *D*, having a loop, *D*<sup>1</sup>, with round end bar, *d*, the block, *F*, having a concave bottom, *f*, and cavity in the top of the block *F* having a concave bottom, *f*, and cavity in the top of the block for the reception of the end of the set screw, *G*, which extends through the rearward projection, *a*<sup>1</sup>, so as to exert a pressure upon the block in the said cavity, as and for the purpose specified. 4th. The thill plate *a*<sup>1</sup>, having a forward, upward and rearward projection, *A*<sup>1</sup>, the recess, *c*, beneath the rearward projection, *a*<sup>1</sup>, the block, *F*, having a concave bottom, *f*, and a cavity in the top of the block for the reception of the set screw, *g*, which extends through the rearward projections, *a*<sup>1</sup>, in combination with the thill iron, *D*, having a loop, *D*<sup>1</sup>, extending at an angle to that portion of the thill iron by which it is secured to the end shaft, as specified.

#### No. 37,711. Cigar. (*Cigare.*)

Adolph Moonelis and Benjamin Lichtenstein, both of New York, State of New York, U.S.A., 2nd November, 1891; 5 years.

*Claim.*—1st. As a new article of manufacture, a cigar having its greatest diameter centrally located, and decreasing in diameter therefrom in both directions equally, and terminating in ends smaller than the central section, substantially as described. 2nd. As a new article of manufacture, a cigar having its greatest

diameter centrally located, and decreasing in diameter therefrom equally in both directions, and terminating in blunt and open ends smaller than the central section, substantially as described. 3rd. A mass of tobacco, comprising an internal filler or bunch having a spirally disposed wrapper secured to the bunch at both its ends and between such ends, substantially as described. 4th. A mass of tobacco, comprising an internal bunch or filler, and a wrapper spirally disposed around it, the said mass being of the greatest diameter in the center and decreasing in diameter therefrom equally in both directions, terminating in blunt and open ends smaller than the central section, substantially as described.

#### No. 37,712. Neck Yoke for Vehicles.

(*Volée d'avant pour voitures.*)

Isaac Oke, Uxbridge, Ontario, Canada, 2nd November, 1891; 5 years.

*Claim.*—1st. The strap plates or protectors *E, M, E, M*, substantially as and for the purpose hereinbefore set forth. 2nd. The clip *B, B*, with permanent eyes *V, V*, on top of clip, substantially as and for the purpose hereinbefore set forth. 3rd. The wood filling *R, R*, (see figure 3), and steel rib *S* passing through centre of neck yoke, substantially as and for the purpose hereinbefore set forth. 4th. The combination of links or rings *N, N*, with curved metal plates or strap protectors *E, M, E, M*, by means of permanent eyes *I, H, I, H*, substantially as and for the purpose hereinbefore set forth. 5th. The combination of links or rings *N, N, C, C*, or their equivalents, with pole or tongue ring *D*, (see figure 1), and metallic clip *B, B*, substantially as and for the purpose hereinbefore set forth. 6th. The combination of links or rings *N, N*, with curved metallic plates or strap protectors *E, M, E, M*, by means of eyes *I, H, I, H*, which secure strap protectors permanently attached to neck yoke, substantially as and for the purpose hereinbefore set forth.

#### No. 37,713. Wire Bale-Tie.

(*Lien de ballot en fil de fer.*)

John D. Coon, Northrop, Colorado, U.S.A., 2nd November, 1891; 5 years.

*Claim.*—1st. In a bale-tie, the wire *A*, having the hook *a* and the stud which is of greater width at its upper portion than at its base, and the wire *B*, looped around the stud below the enlarged upper portion thereof, the hook *a* of the wire *A* being fastened or looped to the wire *B*, substantially as and for the purpose set forth. 2nd. In a bale-tie, the wire *A*, having the hook *a* formed on the end thereof and adapted to be fastened to the other wire *B*, the stud arranged in rear of said hook on the wire *A*, and having the lateral prongs and the depressed portion between the same, and the wire *B*, having its loops drawn tightly around the stud below the prongs thereof, and the end of said wire being then passed through the loop formed by the two wires and between the hook and the stud, substantially as described.

#### No. 37,714. Stove Pipe. (*Tuyau de poêle.*)

Isaiah Huffman, Belleville, Ontario, Canada, 2nd November, 1891; 5 years.

*Claim.*—A stove pipe having an inwardly folded edge *A* and the outwardly folded edge *B*, the outwardly folded edge having a cut-away portion *C* at the end, and the inwardly folded edge having a lip *D* incised and engaging said cutaway edge, substantially as and for the purpose hereinbefore set forth.

#### No. 37,715. Governor for Steam Engines.

(*Gouverneur de machine à vapeur.*)

Weston Engine Company, assignees of Charles K. Longenecker, all of Painted Post, New York, U.S.A., 3rd November, 1891; 5 years.

*Claim.*—1st. The combination, with a fly-wheel *A*, a laterally-movable eccentric *C*, and pivoted weight-levers, *G, G*<sup>1</sup>, one of which has an arm *n* connected with said eccentric, of springs *I* connected to the free ends of said levers at one end and to the fly-wheel at their

other ends, and means for simultaneously moving said latter-named spring ends in opposite directions, substantially as described. 2nd. The combination, with a fly-wheel A, a laterally-movable eccentric C having an arm D pivotally secured to said wheel, an arm E projecting at an angle greater than a right angle, with said pivoted arm from said eccentric and weight-levers, G, G', pivoted to the wheel at points on the same side of the eccentric, of springs I adjustably attached at one end to the wheel on the same side thereof, and having their other ends connected with the free ends of the levers, and means for simultaneously adjusting the ends of the springs that are connected to the wheel an equal distance apart, substantially as described. 3rd. The combination, with a fly-wheel A, a laterally-movable eccentric C, and pivoted weight-levers G, G', one of which is connected with said eccentric, of springs I adjustably connected with said wheel at one end, and means for connecting the other ends of said springs to the free ends of the levers, and adapted to adjust the tension of the springs without change of point of connection to lever, substantially as described. 4th. The combination, with a fly-wheel A, a laterally-movable eccentric C, pivoted weight-levers G, G', one of which is provided with a short arm h at an angle thereto, a link F connected with said arm and the eccentric, and a link H connecting said levers, of springs I connected at one end to the free ends of the levers and at their opposite ends to the wheel, and means for simultaneously adjusting said last-named ends of the springs an equal distance apart, substantially as described. 5th. The combination, with a fly-wheel A, a laterally-movable eccentric C, pivoted weight-levers G, G', one of which is provided with a short arm h projecting at an angle therefrom, and the other with a short arm p projecting in a curved line corresponding with the curve of the lever, a link H connecting said short arms, and a link F connecting said eccentric and one of said arms, of springs I attached at one end to the free ends of the weight-levers, and at their other ends to said wheel, substantially as described. 6th. The combination, with a fly-wheel A, a laterally-movable eccentric C, pivoted weight-levers G, G', having short arms a, p, a link H connecting said arms, and a link F connecting one of said arms and the eccentric, of springs I adjustably attached at one end to the wheel at the same side of its center, and at their other ends to the free ends of the weight-levers, and means for increasing or decreasing the tension of said springs without changing their points of attachment to the levers or to the wheel, substantially as described. 7th. The combination, with a fly-wheel A, a laterally-movable eccentric C, and pivoted weight-levers G, G', of springs I connected at one end to the wheel, nuts I' secured to the other ends of said springs, screw-rods m having hexagons n formed thereon entering said nuts, and yokes J pivotally secured to the free ends of the levers, and adapted to receive one end of said screw-rods, substantially as described. 8th. The combination, with a fly-wheel A, a laterally-movable eccentric C, and pivoted weight-levers G, G', of springs I pivotally connected at one end to the free ends of the levers, pins M adjustably secured to said wheel, and means for moving said pins simultaneously in opposite directions, substantially as described. 9th. The combination, with a fly-wheel A, a laterally-movable eccentric C, and pivoted weight-levers G, G', of pins M adjustably secured to said wheel, and having lugs N formed with screw-threaded perforations, a rod R having right and left screw-threads cut thereon, and a hexagon Q at its center of length, and springs I having one end connected to the free ends of the levers, and the other ends to said pins, substantially as described. 10th. The combination, with a fly-wheel A, having a recess w and slotted lugs R formed on one of the spokes, a laterally-movable eccentric C, and pivoted weight-levers G, G', of pins M having a reduced portion a' adapted to fit in said slots, and lugs N having screw-threaded perforations, a rod P having right and left screw-threads cut thereon and provided with a hexagon Q, whereby said rod may be revolved, and springs connected with the free ends of said levers and with said pins, substantially as described. 11th. The combination, with the curved weight-lever of gradually-increasing width, of a weight W having a slot W' formed therein extending from the periphery beyond the center of said weight, and formed with a curved bottom portion W<sup>2</sup> and a screw B' adapted to secure said weight to said lever, substantially as described.

### No. 37,716. Metallic Sole and Heel Plate for Boots and Shoes. (*Semelle et plaque de taton métalliques pour chaussures.*)

Herbert Samuel Lithgow and Henry H. Roedel, both of Lebanon, Pennsylvania, U.S.A., 3rd November, 1891; 5 years.

*Claim.*—1st. A metallic protector for boots or shoes, comprising a series of plates having rows of elongated projections and intervening grooves on the outer surface, and having the inner surface hollow or concave, and provided with cells to receive a suitable filling. 2nd. A metallic protector for boots and shoes, comprising a series of plates having rows of diagonally arranged and laterally elongated projections of different heights and overlapping each other lengthwise of the shoe, and intervening grooves on the outer surface. 3rd. A stamped sheet metal protector for boots and shoes made in sections constructed to be secured at their ends separately, and provided with diagonally arranged elongated projections overlapping each other lengthwise of the shoe.

### No. 37,717. Hot Air Register.

(*Régistre d'air chaud.*)

John H. Reese, Austin, and Warren Wilkie, Oak Park, both in Illinois, U.S.A., 3rd November, 1891; 5 years.

*Claim.*—1st. In a device of the character described, the combination, with the enclosing wall, of a register having a box-part projecting at right angles therefrom and in close proximity to the floor, and regulating-valves or dampers located in said box-part away from the wall, and adapted to deflect the hot-air currents and deliver the same along a horizontal line, substantially as set forth.

2nd. A register consisting of the rectangular projecting box-part, the attaching-flange, the extension back of said flange, and valves or dampers pivotally mounted on the inside of said box, substantially as described.

### No. 37,718. Baling Press. (*Presse d'emballage.*)

The Collins Plow Company, (assignees of Albert Adolph Gehert), all of Quincy, Illinois, U.S.A., 3rd November, 1891; 5 years.

*Claim.*—1st. The combination of a shaft, a cross head loosely united to the cross shaft, a sweep head loosely mounted on said shaft and united to the cross head, a traverser, a pitman, and a connection loosely mounted on said shaft and located between the cross head and pitman, whereby the former is allowed to revolve continuously with the sweep head, while the pitman swings forward and back on one side only of the press, substantially as described. 2nd. The combination of a traverser, a shaft, a cross head loosely mounted on the shaft, a sweep head loosely mounted on said shaft and united to the cross head, a pitman, and a loose connection between the pitman and the cross head loosely mounted on the shaft, substantially as described. 3rd. The combination of a shaft, a cross head loosely mounted on said shaft, a sweep head loosely mounted on said shaft and united to the cross head, a traverser, a pitman, an arm loosely mounted on the shaft and having a curved slot, a pin, by which the pitman is connected to the arm working in the slot, a movable projection on the arm by which the cross head is connected with the arm to advance the latter, and means for periodically moving the projection out of the path of the cross head, the arm reciprocating with the pitman, while the sweep and cross head revolve continuously, substantially as described. 4th. In a baling press, the combination of a traverser, a shaft, cross head on the shaft, an arm loosely mounted on the shaft, a pitman having slot-and-pin connection with the arm, a block pivoted to the arm, and a cam against which said block impinges, substantially as and for the purpose set forth. 5th. In a baling press, the combination of a traverser, a shaft, a cross head on the shaft and having notched ends, an arm loosely mounted on the shaft and to which the traverser is connected by a pitman, a block provided with a friction roller and pivoted to the said arm, and a cam against which said block impinges, substantially as and for the purpose set forth. 6th. In a baling press, the combination of a traverser, a shaft, a cross head on the shaft, an arm loosely mounted on the shaft, a pitman connecting the traverser to the arm, a block pivoted to the arm and adapted to be engaged by the cross head, a cam against which the block impinges, and a spring 20, substantially as and for the purpose set forth. 7th. In a baling press, the combination of a traverser, means for operating the traverser, a baling chamber having a flexible wall, pivoted cams bearing against the wall of the baling chamber, levers on the cams, a link connecting the levers, and a screw provided with a handle for moving the cams, substantially as and for the purpose set forth.

### No. 37,719. Disinfecting Apparatus.

(*Appareil à désinfecter.*)

Frederick James Mitchell, New York, State of New York, U.S.A., 3rd November, 1891; 5 years.

*Claim.*—1st. A vessel adapted to contain liquid and provided with a spout composed of fibres of vitreous or mineral substance so arranged that the liquid in the vessel will flow out through said fibres in the direction of their length, substantially as shown and described. 2nd. A vessel adapted to contain liquid and provided with a spout composed of fibres of a vitreous or mineral substance in combination with mechanism for controlling the circumferential pressure on said fibres, substantially as shown and described. 3rd. The combination with a vessel adapted to contain liquid, of a fibrous spout, a washer surrounding said fibres and an adjustable follower arranged to bear against said washer, substantially as set forth. 4th. The combination of a vessel adapted to contain liquid and provided with a fibrous spout in combination with an auxiliary feeding reservoir, substantially as set forth. 5th. In a valve, the combination of the valve stem d', the spring d', surrounding said stem and adapted to normally hold the valve towards its seat, the collar d', loosely mounted on said stem and furnishing a bearing for the upper end of said spring, the packing d<sup>2</sup>, held between the collar d' and the bonnet of the valve, the arm d<sup>2</sup>, rigidly secured to the valve stem and provided with a projection d<sup>3</sup>, and the step d<sup>4</sup>, on the bonnet of the valve, substantially as set forth. 6th. In a valve, the combination of the valve stem d', the spring d<sup>5</sup>, surrounding said stem and adapted to normally hold the valve towards its seat, the collar d', loosely mounted on said stem and furnishing a bearing for the upper end of said spring, the packing d<sup>3</sup>, held between the collar d' and the bonnet of the valve, the arm d<sup>2</sup>, rigidly secured to the valve stem and provided with a projection d<sup>3</sup>, the step d<sup>4</sup>, on the bonnet of the valve, and mechanism substantially as shown for vibrating said arm, substantially as set forth. 7th. In an apparatus of the character described, the combination of the reservoir B, provided with a fibrous spout, the receptacle C, provided with a suitable outlet, and the valve D, arranged to deliver water to said receptacle substantially as and for the purposes set forth. 8th. In an apparatus of the character described, the combination of the reservoir B, provided with a fibrous spout b, the packing b<sup>2</sup>, the follower b<sup>3</sup>, the receptacle C, provided with a suitable outlet, and the valve D, arranged to deliver water to the receptacle C, substantially as and for the purposes set forth. 9th. In an apparatus of the character described, the combination of the reservoir A, the reservoir B, having a fibrous spout, the receptacle C, provided with a suitable outlet and the valve D, adapted to deliver water into said receptacle, substantially as and for the purposes set forth. 10th. In an apparatus of the character described, the combination of the reservoir A, the reservoir B, having a fibrous spout, the receptacle C, provided with a suitable outlet, the valve D, provided with valve stem d', arm d<sup>2</sup>, projection d<sup>3</sup>, step d<sup>4</sup>, and spring d<sup>5</sup>, with an atomizer, an air forcing apparatus adapted to operate the same, and connections between the air forcing apparatus and the arm d<sup>2</sup>, substantially as and for

the purposes described. 11th. In an apparatus of the character described, the combination of the reservoir A, the reservoir B, having a fibrous spout, the receptacle C, provided with a suitable outlet, the valve D, provided with valve stem  $d^1$ , arm  $d^2$ , projection  $d^3$ , step  $d^4$ , and spring  $d^5$ , said arm being adapted to be connected with some movable object of the nature described, substantially as and for the purposes described.

### No. 37,720. Butter Cutter. (*Coupe-beurre*.)

Joseph Chenier, Canmore, District of Alberta, North West Territory, Canada, 4th November, 1891; 5 years.

*Claim.*—1st. In a device for cutting and gauging butter, the combination with an open-bottomed vessel A, of the upright rods B, secured to the top of the said vessel, the plunger D, having a rod  $d$  passing through the said top, carrying the handle C, the said handle sliding on the said rods B, the levers F pivoted to the sides of the said vessel connected at the top by the rods and handle H,  $h$ , the cutting wire G secured to and connecting the lower ends of the said levers F, the U-shaped gauge wire J, and the vat  $l$ , substantially as set forth. 2nd. In a device for cutting butter, the combination with an open-bottomed vessel, having a plunger and suitable means for operating said plunger, of the levers F pivoted to the sides of the vessel, the said levers having beveled edges, the wire G carried by the said levers, and adapted to cross the bottom of the said vessel, and suitable means for operating the said levers, substantially as set forth. 3rd. In a device for cutting and gauging butter, the combination with an open-bottomed vessel A, having a handle secured to the top by the upright rods B, of the plunger D, rod  $d$  and the handle C sliding on the said rods, having notches  $c$ , and the pivoted gauge wire J, substantially as set forth.

### No. 37,721. Railway Joint. (*Joint de rail.*)

John Martin Wiley, Bonham, Texas, U.S.A., 4th November, 1891; 5 years.

*Claim.*—The combination, with the rails, of the concave fish plates provided with vertical bearing surfaces upon their inner faces, the rubber washers interposed between said bearing surfaces and the web of the rail, the bolt and the split key passed through a slot in the bolt and turned around said bolt, as and for the purposes specified.

### No. 37,722. Stand for Fire Irons.

(*Porte-tisonnier.*)

Hannah Meranda Pierce, Manitowoc, Wisconsin, U.S.A., 4th November, 1891; 5 years.

*Claim.*—A stand for fire irons and similar articles, consisting of the platform, A, side supports, B, and the standard, C, having suitable hooks,  $a$ , and the transverse partition, E, to form the compartment, D, and the openings,  $b$ , on line with the compartment, substantially as and for the purpose set forth.

### No. 37,723. Heating Drum. (*Poêle sourd.*)

Robert Pugh, Casselton, North Dakota, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. The cylinder having inlet-pipe extending within the same, combined with a heating chamber, and having ingress and egress openings and dividing the cylinder, and a foul-air pipe extended through the smaller compartment thus formed, as set forth. 2nd. The cylinder having smoke-pipe extending within the same, combined with the chambers within the cylinder, and having ingress and egress openings with space between the bottom of the chamber and cylinder, and a partition between the top of the chamber and the top of the cylinder, substantially as specified. 3rd. The combination with the cylinder and its inlet smoke-pipe, of the triangular heating-chamber within the cylinder, and having a portion extended above its top to shut off communication between the main portion of the cylinder and its exit flue, substantially as specified. 4th. The combination with the cylinder and its smoke-pipe, and triangular heating-chamber dividing the cylinder into two compartments, of the tapered foul-air pipe extended through the smaller compartment, substantially as specified. 5th. The combination with the cylinder provided with vertical guides, of the triangular heating-chamber provided with side flanges engaging said guides, and having a portion extended above the top of the chamber, substantially as and for the purpose specified. 6th. The combination with the cylinder provided with vertical guides, of the triangular heating-chamber provided with side flanges working in said guides, and having the metal extended above the top of the chamber, and its upper end turned horizontally, substantially as shown and described.

### No. 37,724. Oil Cup Attachment for Journal Boxes. (*Disposition aux godets à huile pour coussinets de tourillon.*)

George B. Woodmaney, Randolph, New York, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. In an oil-cup, the combination, with a reservoir, a casing surrounding the same and having depending edges adapted to fit over the strap of a railway-car truck, and set-screws through one of said edges, of a pipe leading from said tank and having a reduced tip, the whole adapted for use and for the purpose set forth. 2nd. In an oil-cup, the combination, with a reservoir adapted to be mounted upon the truck of a railway-car, journal-box of machinery or shafting, a pipe leading therefrom to the bearing, and a cock in said pipe, of a chamber upon said reservoir having an air-inlet opening, an air-inlet pipe leading from the bottom of said chamber into the reservoir, and a ball within said chamber normally resting upon and closing the upper end of said pipe, as and for the purpose hereinbefore set forth.

### No. 37,725. Metallic Fence Post.

(*Poteau de clôture métallique.*)

Thomas Jones Thorp, Chicago, Illinois, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. The post section consisting of a partial tube having a longitudinal opening and provided with rings secured thereto having a re-entrant angular portion fitting said opening, substantially as set forth. 2nd. The post section consisting of a partial tube having a longitudinal opening and provided with rings secured thereto having a re-entrant angular portion fitting opening and provided with external claw-hooks supported in said angular portion, substantially as set forth. 3rd. In a post, in combination with a tube having a diameter diminishing toward its top, a ring of a diameter to fit the tube at a point between its ends, said ring being provided with a wire fastening device having oppositely arranged cleft hooks constituting two pairs, arranged back to back upon one stem or shank and adapted to receive a wire between the members of one pair of hooks and around one of the other pair, thence around the stem under the first named pair, and over the wire between the hooks of said pair, substantially as set forth.

### No. 37,726. Metal Post.

(*Poteau métallique.*)

Thomas Jones Thorp, Chicago, Illinois, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. The open tube sections having their ends serrated and the serrations or teeth bent at an angle to the tube wall, combined with a plug having a screw threaded stem, a ring having two seats for the tube ends therein and a screw threaded axial opening, and also with a similar section having a plug with screw threaded opening, whereby the two plugs can be screwed together to clamp the tube sections in the ring, substantially as set forth. 2nd. The tube section having a serrated end and the serrations or teeth bent at an angle to the wall of the tube, a plug having a screw stem, and a screw threaded cap adapted to screw upon the plug stem and clamp the teeth or serrated portions between itself and the plug, whereby the end of the upper tube section is kept in proper form and adapted to receive a flange F, substantially as set forth. 3rd. The open tubular post provided with a ring having a re-entrant angular part fitting the opening in the post, an angular bracket fitting and bolted to said angular part, and a bar provided with insulators fastened to said bracket, substantially as set forth.

### No. 37,727. Apparatus for Operating Atomizers and Other Devices. (*Appareil pour pulvérisateurs et autres.*)

Frederick James Mitchell, New York, State of New York, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. The combination of an air forcing device and a pivoted arm connected therewith, both adapted to be attached to a stationary support, such as a door jamb, with a projection adapted to be attached to a movable support, such as a door, and to engage with said arm during a portion of the movement of said movable support in one direction and to pass under and behind said arm on the reverse movement of said movable support, substantially as and for the purposes set forth. 2nd. The combination of an air forcing device and a pivoted arm H, both adapted to be attached to a stationary support, such as a door jamb, with a depressible projection I, adapted to be attached to a movable support, such as a door, and to engage with said arm H, substantially as and for the purposes set forth. 3rd. The combination of the supports X, Y, of an air forcing device, of a pivoted arm H, provided with beveled portion  $h^1$ , and of a depressible bolt I, adapted to engage with said beveled portion of the arm H, substantially as and for the purposes set forth. 4th. The combination with an atomizer or equivalent device of the supports X, Y, of an air forcing device, of a pivoted arm H, provided with beveled portion  $h^1$ , and of a depressed bolt I, adapted to engage with said beveled portion of the arm H, substantially as and for the purposes described.

### No. 37,728. Corset. (*Corset.*)

John Stuart Crotty, New York, State of New York, U.S.A., 4th November, 1891; 5 years.

*Claim.*—A corset composed of several sections, alternate sections being composed of two thicknesses, the edge of one thickness overlapping the edge of the other thickness so as to leave a projecting edge of single thickness, combined with intermediate sections, the edges of the intermediate sections extending over the said projecting edge of single thickness and in between the two thicknesses, with a line of stitches run through the two thicknesses and the edge of the intermediate thickness, and other lines of stitches run through the said intermediate thickness and the said single thickness projecting edge, the said two thickness sections with their single thickness projecting edges being the sole connection between the intermediate sections, substantially as described.

### No. 37,729. Drum for Cable Railways.

(*Treuil pour tramways à traction de câble.*)

John Walker, Cleveland, Ohio, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. A grooved driving drum for a cable railway, having the first of the series of grooves formed in a stationary or fixed part of the drum, and the remaining ones in rings adapted to turn on, and independently of, the said drum, combined with a second grooved drum, all the grooves of the two drums being of a practically common diameter, and a cable reeved around so as to connect the said

drums, substantially as and for the purpose specified. 2nd. A driving drum having a series of grooved peripheral rings in contact with each other, and adapted to turn on the surface of the drum, and a removably secured flange, substantially as and for the purpose specified.

### No. 37,730. Drum for Cable Railways.

(*Treuil pour tramways à traction de câble.*)

John Walker, Cleveland, Ohio, U.S.A., 4th November, 1891; 5 years.

*Claim.*—In combination with a driving drum for a cable railway, in which one or more of the grooves for the cable are in a portion which moves in unison with the driving shaft, an idler drum having all the grooves for the cable in rings adapted to turn independently of the drum proper or the idler shaft, substantially as and for the purpose specified.

### No. 37,731. Scaffold Bracket.

(*Boulin d'échafaud.*)

Simon Van Vliet, Rutherford, New Jersey, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. In a scaffold bracket, the combination of an inclined brace, a floor support pivoted thereto, loops at the outer ends of said brace, and floor support for the attachment of a post of the scaffold, an upright connecting the front ends of said brace and floor support, and provided with a tooth, and means for projecting said tooth into engagement with a scaffold, substantially as and for the purpose set forth. 2nd. In a scaffold bracket, the combination of an inclined brace, a floor support pivoted thereto, loops at the outer ends of said brace, and floor support for the attachment of a post of the scaffold, said loops being provided with means as described for enlarging or contracting the same, an upright connecting the front ends of said brace and floor support, and provided with a tooth and means for projecting said tooth into engagement with a scaffold, substantially as and for the purpose set forth. 3rd. In a scaffold, the combination of an inclined brace, a floor support pivoted thereto, said brace and floor support being provided with loops for the attachment of a post of the scaffold, an upright pivoted to the lower end of said brace and provided with a tooth at its front edge, and means at the upper end of said upright whereby its tooth is caused to project into said scaffold, substantially as and for the purpose set forth. 4th. In a scaffold bracket, the combination of an inclined brace, a floor support pivoted thereto, loops at the outer ends of said brace and floor support for the attachment of a post of the scaffold, an upright pivoted at its lower end to the lower end of said brace, and provided with a tooth, a pin at the outer end of the floor support, and means engaged thereby whereby said tooth is caused to project into the scaffold, substantially as set forth. 5th. In a scaffold bracket, the combination of an inclined brace provided with a block at its upper end and a loop at its outer end, a floor support pivoted to said brace and provided with a loop at its outer end, an upright pivoted to the lower end of said brace and provided with inclined teeth at its front edge, and means at the upper end of said upright whereby its teeth are caused to project into said scaffold, substantially as set forth. 6th. In a scaffold bracket, the combination of an inclined brace, a floor support pivoted thereto, means at the outer ends of said brace, and floor support for engaging a post of the scaffold, an upright pivoted to said brace and provided with a tooth at its front edge, and an inclined slot at its upper end and a pin at the outer end of said floor support adapted to engage in said slot, substantially as and for the purpose set forth. 7th. In a scaffold bracket, the combination of an inclined brace, a floor support pivoted thereto, an upright connecting the front ends of said brace and floor support, and provided with a tooth, means for projecting said tooth into engagement with a post of a scaffold, and means at the outer ends of said brace and floor support for engagement with said posts, substantially as set forth.

### No. 37,732. Mechanical Movement.

(*Transmission du mouvement.*)

Sigismund B. Wortmann, New York, State of New York, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. In a mechanical movement, the combination with a spring and its shaft or axle, of the transmitting gear having its prime moving wheel and its fast wheel of different diameters, the one wheel being actuated by the reaction of the spring and the other wheel being fast with the spring arbor or shaft, substantially as and for the purpose set forth. 2nd. In a mechanical movement, the combination with a spring and its shaft or axle, of the fast wheel carried by said shaft, the prime moving wheel actuated by a reaction of the spring, and a transmitting wheel operating in connection with the prime moving wheel and the fast wheel, substantially as and for the purpose described. 3rd. In a mechanical movement, the combination with a spring and its axle or shaft, of the transmitting gear having the main wheels of different diameters relatively to each other and said main wheels being fast, respectively with the spring drum and the spring axle, substantially as and for the purpose described. 4th. In a mechanical movement, the combination with a spring and its axle or shaft, of the transmitting gear having the two main wheels and a compound wheel, said main wheels being of different diameters relatively to each other, one wheel being fast with the axle and the other wheel rigid with the spring drum, and the compound wheel engaging both of said main wheels, substantially as and for the purpose set forth. 5th. In a mechanical movement, the combination with an axle and a spring, of a prime moving gear rigid with the spring drum, another gear of larger or smaller diameter than the prime gear and fixed to the spring shaft, and a compound gear which meshes with both wheels, substantially as described. 6th. In a mechanical movement, the combination of the axle or shaft, the spring drum having the prime moving wheel rigid therewith and fitted on the axle or shaft to turn freely on the same,

the spring having its ends attached respectively to the spring drum and the shaft, another gear of larger or smaller diameter than the prime moving wheel and rigid with the shaft or axle, and a compound gear which meshes with both wheels, substantially as and for the purpose set forth.

### No. 37,733. Electric Wire Subway.

(*Conduits souterrains pour fils électriques.*)

Marie Edmond Dansereau, Montreal, Quebec, Canada, 4th November, 1891; 5 years.

*Résumé.*—1o. Dans Dansereau's electric wire subway l'utilisation de l'espace occupé par le ruisseau, pavage de la rue, ("gutter or water course") pour y établir le couloir du "Subway," tel que décrit et pour les fins indiquées. 2o. Dans Dansereau's electric wire subway, la combinaison du couloir du ruisseau et de la bordure (curb stone) tel que décrit et pour les fins indiquées. 3o. Dans Dansereau's electric wire subway la disposition des couloirs A, A, et B, B, le couloir A, A, passant au dessus du couloir B, B, éviter les courants induits aux encoignures des rues, les couloirs se croisent a des niveaux différents, tel que décrit et pour les fins indiquées. 4o. Dans Dansereau's electric wire subway le croisement de la fosse B, servant de réduit pour les ouvriers chargés de faire les réparations, tel que décrit et pour les fins indiquées. 5o. Dans Dansereau's electric wire subway l'utilisation de la bordure pour y déposer des fils au besoin, tel que décrit et pour les fins indiquées. 6o. Dans Dansereau's electric wire subway la combinaison des deux couloirs de croisement, de la fosse et de la cloison (facultative) de séparation, tel que décrit et pour les fins indiquées. 7o. Dans Dansereau's electric wire subway l'emploi de supports, en matière isolante ou non, pour porter les cables, fils, etc., tel que décrit et pour les fins indiquées. 8o. Dans Dansereau's electric wire subway, l'emploi de regards aux encoignures des rues et en general partant ou la chose sera necessaire permettant l'installation, l'examen et la réparation des fils, tel que décrit et pour les fins indiquées. 9o. Dans Dansereau's electric wire subway l'emploi de couvercles a fermeture hermetique pour les regards, tel que décrit et pour les fins indiquées. 10o. Dans Dansereau's electric wire subway l'emploi d'un drain permettant de diriger dans l'égout les eaux qui pourraient s'infiltrer dans le couloir, tel que décrit et pour les fins indiquées. 11o. Dans Dansereau's Electric wire subway la combinaison de la bordure du ruisseau, du couloir, de la fosse, de la cloison de séparation, du regard avec couverture hermetique, des supports, des fils depose et du drain le tout construit en matériaux quelconques, pierre artificielle, biton, maçonnerie de pierre ou briques, etc., etc., tel que décrit et pour les fins indiquées.

### No. 37,734. Method of Packing Baking Powder. (*Méthode d'emballage des poudres à pâte.*)

William Pitt Clotworthy, Baltimore, Maryland, U.S.A., 4th November, 1891; 5 years.

*Claim.*—As an article of manufacture, a package of baking powders, consisting of a suitable receptacle A, containing the acid D, and carbonated alkali B, placed with their contiguous layers in contact, whereby a dividing layer of a chemical salt C, is formed between the two bodies, substantially as described.

### No. 37,735. Method of Packing Baking Powder. (*Méthode d'emballage des poudres à pâte.*)

William Pitt Clotworthy, Baltimore, Maryland, U.S.A., 4th November, 1891; 5 years.

*Claim.*—As a new article of manufacture, a package of baking powders in which, until required for use, the acid is separated from the carbonated alkali by a layer or stratum of powdered starch, all substantially as described.

### No. 37,736. Railway Cross Tie.

(*Traverse de croisement de chemin de fer.*)

James Gamble Carson, (assignee of Edward Brandwood), both of Philadelphia, Pennsylvania, U. S. A., 4th November, 1891; 5 years.

*Claim.*—The combination of the rail clamps and the cross tie having clamp receiving boxes flared from each end toward the centre, with clamp supporting blocks adapted to said flared portions of the boxes, substantially as specified.

### No. 37,737. Flash Steam Generator.

(*Générateur de vapeur à jet.*)

Edwin Reynolds, Brooklyn, New York, U.S.A., 4th November, 1891; 5 years.

*Claim.*—1st. In a flash steam generator, the combination with an inclosing shell or case, of a coil composed of a flattened tube, a bulb or receptacle arranged within the inclosing shell and receiving from the coil, steam and water pipes leading from said bulb, and a heat generator arranged within the inclosing shell below the coil therein, substantially as shown and described. 2nd. A flash steam generator, comprising an outer shell or case, an inner shell arranged within and concentric with the outer shell, a coil arranged with the inner shell and provided with a series of narrow chambers or passages, one end of said coil extending through the inclosing shells, a bulb or vessel receiving from the inner end of the coil, the escape pipes, and a hydro-carbon burner arranged within the inclosing shells, below the coil therein, substantially as shown and described. 3rd. A flash steam generator comprising an outer inclosing case or shell pro-

vided with a suitable outlet, another shell or casing arranged within and concentric with the outer casing, a coil formed of a flattened tube lined with non-corrosive material and arranged within the inner shell, a bulb fitted on the inner end of the coil, a pipe extending from the lower portion of said bulb, another pipe leading from the upper part of the bulb, and a hydro-carbon burner arranged within the inner shell below the coil therein, substantially as shown and described for the purpose specified.

### No. 37,738. Time Recorder. (*Régistre horaire.*)

Willard Le Grand Bundy, Binghamton, New York, U.S.A., 5th November, 1891; 5 years.

*Claim*.—1st. In a time recording apparatus, hour and minute wheels, a rotating key provided with a number or character upon a bit thereof, to register the operator, upon a strip and an impression hammer. 2nd. In a time recording apparatus, the combination with the impression hammer, of hour and minute registering wheels, a key inserted and turned to bring the number or character upon the bit thereof into alignment with said wheels and a registering strip. 3rd. The combination with the key, of the slotted receiver receiving it and rotating with it. 4th. The combination with the key and the slotted receiver, receiving it and rotated by the turning of the key, of the impression hammer. 5th. The combination of the key, the slotted receiver, receiving it and rotated by the turning of the key, and the hour and minute registering wheels, of the registering strip and the impression hammer. 6th. The combination with the key, the bit thereon carrying the numeral or character, the slotted receiver, and rotated by the turning of the key, of the registering strip and the impression hammer. 7th. The combination with the key, the bit thereon carrying the numeral or character, the beveled ward upon said key, and the slotted receiver receiving the key, of a swinging pawl provided with a series of steps on its face with which the key ward successively engages. 8th. The combination with the key, its beveled ward, and number bit, and the slotted key receiver, of a swinging pawl provided with steps on its face, with which the key ward successively engages, a frame with which said pawl engages when the key is turned, and intermediate mechanism actuated by the movement of said frame by which the hammer is actuated, hour and minute registering wheels, and a registering strip. 9th. The combination with the hour registering wheel and a disk connected thereto, provided with notches in its edge, of a disk provided with a single tooth adapted to engage with said notches successively, and synchronously with a clock movement through intermediate mechanism rotating the latter disk. 10th. A clock movement, hour and minute registering wheels, synchronous mechanism actuating said wheels, independently of each other and actuated by the clock movement, and a key provided with a bit carrying numbers brought into alignment with the hour and minute wheels by the turning of the key, a registering strip and an impression hammer in combination as set forth. 11th. A clock movement, hour and minute registering wheels, synchronous mechanism actuating said wheels independent of each other, and actuated by the clock movement, a key provided with a bit carrying numbers brought into alignment with the hour and minute wheels by the turning of the key, a ward upon the key, a registering strip, an impression hammer, operated by mechanism actuated by the ward of said key as it is turned, in combination as set forth. 12th. The combination with the key, and the slotted key receiver, of the steps upon the receiver controlling the forward and back turning of the key and receiver.

### No. 37,739. Loom for Making Mesh Fabrics.

(*Metier pour faire les mailles des tissus.*)

James Knox, Kilbirnie, Ayr, North Britain, 6th November, 1891; 5 years.

*Claim*.—1st. In a net weaving machine or loom of the vertical class, the arrangement and use of vertical oscillating or reciprocating faller needles or needle hooks  $a^1$  operated from a treadle lever or its equivalent, and acting in combination with the front hooks  $B^1 b^1$  alone, after the thread has been released from the ordinary fallers  $A^1$  for the purpose of putting a double loop turn or twist of the thread round the front hooks  $B^1 b^1$  in forming the double knots on the net meshes, substantially as herein described. 2nd. In a net weaving machine or loom of the vertical class, the forming of a groove  $c^2$  in cam plate for a pin or arm  $c^1$  to traverse vertically in, for giving an auxiliary forward and backward motion to the front hooks  $B^1 b^1$  to take up the double loop turn or twist of thread necessary to form the double knots on the net meshes from the vertical moving faller needles  $a^1$ , substantially as herein described and shown. 3rd. In a net weaving machine or loom of the vertical class, the constructing of the front hooks  $B^1$  with a new grooved part  $b^1$ , and the stationary needles  $C^1$ , with curved in points  $c^1$  for the purpose of forming a double knot on the net meshes, substantially as herein described. 4th. In a net weaving machine or loom of the vertical class, to produce double knots, the construction and combination of a plate or bar  $c^2$  with serrated or saw-like teeth below the points  $c^1$  of the needles  $C^1$ , substantially as and for the purposes herein described. 5th. In a net weaving machine or loom of the vertical class to produce double knots, the construction and combination of the pressing or "chapping" bar  $D^1$  with serrated or saw-like teeth  $d^1$ , substantially as and for the purposes herein described. 6th. In a net weaving machine or loom of the vertical class, the construction and combination of a lever  $F^1 F^2$  or its equivalent operating a toothed wheel  $F^4$  for the purpose of giving a momentarily slackening back motion to the taking up net beam  $F^3$  during the forming of the double knot, substantially as and in the manner herein described.

### No. 37,740. Bearings for Journals or Shafts.

(*Coussinets pour tourillons ou arbres de couche.*)

William Stafford, Lancaster, Ontario, Canada, 6th November, 1891; 5 years.

*Claim*.—1st. The loose inner shell  $d, d$ , substantially as and for the purpose hereinbefore set forth. 2nd. The combination of inner shell  $d, d$  and slots  $g, g$ , substantially as and for the purpose hereinbefore set forth. 3rd. The combination of inner shell  $d, d$ , slots  $g, g$ , and projections  $f, f$ , substantially as and for the purpose hereinbefore set forth. 4th. The combination of inner shell  $d, d$ , pedestal  $a$ , or any other form of pedestal, hanger, bracket, or any other bearing in shafting or machinery, substantially as and for the purpose hereinbefore set forth. 5th. The combination of inner shell  $d, d$ , recess  $i$ , hole  $k$ , spiral spring, ring, chain or any other similar oil conveyer, substantially as and for the purpose hereinbefore set forth.

### No. 37,741. Safety Rolling Step Ladder.

(*Echelle roulante de sûreté pour vitriers.*)

Charles Hercule Damase Sincennes, Montreal, Quebec, Canada, 1891; 5 years.

*Claim*.—1st. A travelling step ladder supported on rollers about midway of its length, substantially as described. 2nd. A travelling step ladder, the combination with store shelving provided with guide railing, one at the top and the other about midway to the bottom, of a step ladder having travelling connection with such railing and means for supporting such ladder midway of its length, substantially as described. 3rd. The combination with store shelving and rails running longitudinally along the face of same at the top and midway to the bottom, of a step ladder having travelling connection and confined between said upper and lower guide rails, substantially as described. 4th. The combination with store shelving and rails running longitudinally along the projecting top board and the counter ledge of same, of a step ladder carrying rollers at its upper end to travel along the top board rail, and a support carried by the ladder and projecting rearwardly to the counter ledge rail with which it has a travelling connection, as set forth.

### No. 37,742. Electric Comb. (*Peigne électrique.*)

John Matthew Riley, Cleveland Ave., Township of Harrison, New Jersey, U.S.A., 7th November, 1891; 5 years.

*Claim*.—1st. An electrical comb combining therein a series of electrically different plates separated by an electrical non-conductor a chamber for an excitant and means for holding said plates and insulators in a voltaic pile, substantially as set forth. 2nd. An electrical comb, the back of which provides a longitudinal receptacle, a series of toothed and electrically different plates arranged within said receptacle, and means for insulating said plates and for exciting electrical action, substantially as set forth. 3rd. The improved electric comb herein described, combining with a slotted tube, furnishing rigid abutments at its opposite ends, a series of insulated and alternating plates, forming a voltaic pile, held rigidly within said tube by said abutments, substantially as and for the purposes set forth. 4th. The improved electric comb herein described, combining therein a slotted tube having one end turned inward to form an abutment, a series of insulated plates pressed against said abutment and held by a co operating abutment secured to the opposite end of the tube, the said plates being provided with combining teeth and perforated to form a chamber for generating material, substantially as and for the purposes set forth. 5th. In combination with the slotted tube, the dissimilar plates  $c, d$ , having projections  $c$ , and insulating washers  $e$ , all arranged and combined substantially as and for the purposes set forth.

### No. 37,743. Carbon for Arc Lamps.

(*Carbon pour lampes à arc.*)

Samuel Irwin, Markdale, Ontario, Canada, 7th November, 1891; 5 years.

*Claim*.—1st. A continuous carbon for use in electric arc lamps consisting of a series of sections, each section being fitted at one end with a male joint consisting of a pin fitted on its side face with a lug, and a female joint consisting of a recess to receive the pin of the adjacent section, a slot entering into said recess of the female joint to receive the lug on the pin of the male joint, said slot bent to form an angular recess into which said lug is turned to securely hold the two sections together, substantially as described. 2nd. A continuous carbon for use in electric arc lamps consisting of a series of sections, each section being fitted at one end with a male joint consisting of a pin having a groove or channel extending lengthwise along said pin to its free end, said groove bent to form an angular recess, and at the other end with a female joint consisting of a recess, a lug secured to the inner face of said recess to enter said channel in the pin of the male joint of the adjacent section, substantially as described.

### No. 37,744. Cork Screw. (*Tire-bouchon.*)

David W. Davis, Detroit, Michigan, U.S.A., 7th November, 1891; 5 years.

*Claim*.—As a new article of manufacture, a corkscrew having a foldable handle, a fulcrum plate consisting of a flat blade pivoted in one end of the handle, said fulcrum having pointed arms adapted to fit between the mouth of the bottle and the cork, and a pointed and concave wire cutter extended therefrom and forming part thereof, substantially as described.

### No. 37,745. Pocket Attachment.

(*Attache pour poches.*)

Joseph Ledoux, Montreal, Quebec, Canada, 7th November, 1891; 5 years.

*Claim*.—1st. The combination in a pocket attachment of the pocket frame  $A$ , consisting of the bar  $a$ , having arms provided with clasps adapted to grasp the side of the pocket, with the article to be attached having a hook secured thereunto adapted to engage with



the bar *a*, the whole substantially as and for the purpose set forth. 2nd. The combination in a pocket attachment of the pocket frame *A*, consisting of bar *a*, having arms *b*, provided with clasps *c*, with hook *B*, provided with projections *f*, adapted to be passed through the article to be attached and clinched, the whole substantially as and for the purposes set forth.

### No. 37,746. Railway Spike.

(*Chevillette de chemin de fer.*)

Samuel Childs Hill, Washington, District of Columbia, U.S.A., 7th November, 1891; 5 years.

*Claim.*—A spike having a shank provided with a chisel edge or wedge point at its lower end, the shank having a convex curve on the inside or side which, in use, will be nearest to the rail from the base of the wedge upward to near its upper part, below the head, and from there, continuous with it, a concave curve to the under part of the head, on the opposite side or side which, in use, will be farthest from the rail, on the concave curve from the top of the wedge upward to near its upper part, below the head, and from there, continuous with it, a convex curve to the head, substantially as and for the purpose described.

### No. 37,747. Improvements in Apparatus for Producing Perforated Stencils.

(*Appareil pour produire des patrons perforés.*)

Herbert Fox Standing, Cadogan Moor, Bournemouth, England, 7th November, 1891; 5 years.

*Claim.*—1st. In apparatus for producing perforated stencils, the combination of a revolving disc or wheel having a large number of small notches or recesses on its periphery, a frame or casing carrying said wheel, a tubular holder to the lower end of which said frame or casing is attached and which constitutes a duct for an air jet made to impinge on the notches of the wheel, an eccentric or crank pin attached to the said wheel, and a perforating needle having a loop formed thereon embracing the said eccentric or crank pin, so as to be vertically reciprocated thereby, substantially as described. 2nd. In apparatus for producing perforated stencils, the combination of a revolving disc or wheel having a large number of small notches or recesses on its periphery, a frame or casing carrying said wheel, a tubular holder to the lower end of which said frame or casing is attached, and which constitutes a duct for an air jet made to impinge on the notches of the wheel, an eccentric or crank pin attached to the said wheel, and a perforating needle having a loop formed thereon embracing the said eccentric or crank pin so as to be vertically reciprocated thereby, and a spring support attached to the casing or holder and adapted to rest upon the stencil, to enable thick and thin lines to be produced by the needle, substantially as described. 3rd. In apparatus for producing perforated stencils, a vertically reciprocating needle actuated by an eccentric or crank pin on the side of a revolving wheel formed with a great number of small notches on its periphery contained within a casing attached to the end of a tubular holder extending at an angle to the vertical needle, and constituting an air duct through which an air jet is made to impinge on the notched wheel, substantially as described. 4th. An apparatus for producing perforated stencils by means of a reciprocating needle, a motor wheel for imparting motion to said needle consisting of a disc having a great number of small notches on its periphery, substantially as described. 5th. In apparatus for producing perforated stencils, a reciprocating needle, the upper part of which is bent to form a loop in which works the eccentric or crank pin that imparts motion thereto, substantially as described. 6th. In apparatus for producing perforated stencils, a spring support attached to the casing or holder of the apparatus and adapted to rest upon the stencil with spring action, substantially as and for the purposes described. 7th. In apparatus for producing perforated stencils, the combination of a tubular holder *A*, casing *E* *H*, air tube *D*, notched wheel *F*, eccentric *I*, needle *J*, and spring support *K* *L*, arranged and operating substantially as described.

### No. 37,748. Machine for Making Fagots.

(*Machine pour faire des fagots.*)

Warren Spear Mayo and George Robertson, both of Ottawa, Ontario, assignees of Jonathan Markham Sissons, Hull, Quebec, all in Canada, 9th November, 1891; 5 years.

*Claim.*—1st. In a fagot-making machine, the hopper *D*, trunk *E*, and holding-levers *J*, pivoted in the sides of said trunk, the eccentric-rollers *K*, and means for operating said rollers, substantially as shown and specified. 2nd. In a fagot-machine, the vertically-sliding bars *I*, carrying the rocking pins *G*, the arms *F* and *H*, rigidly secured to said rocking pin, and the pins *U* in the arms *H*, arranged to move on the faces of and through grooves in the blocks *V*, which are provided with the springs *B* for controlling the actions of the arms *F*, substantially as shown and specified. 3rd. In a fagot-machine, the combination of the shaft *O*, journaled on the frame, the cam-wheel *Q* thereon, the lugs *R* on said cam-wheel, the rod *N*, arranged to be engaged by the said lugs, the lever *L*, having its rear end pivoted to the rod end, the bars *I*, the rods *M*, connecting the bars *I* to the forward ends of the lever *L*, the rocking pins *G*, sustained by the bars *I*, and the arms *F*, carried by the rocking pins, substantially as described. 4th. In a fagot-machine, the shaft *O*, having secured on it the disk *P*, carrying one or more fagot-forming devices, substantially as shown and specified. 5th. A fagot-forming device consisting of a steam-cylinder set radially in a revolving disk centered on a horizontal shaft, a cradle secured to the piston-rod of said cylinder for receiving the fagot-sticks from a hopper above it, and end-evening plates hinged to opposite sides of said disk, substantially as shown and specified. 6th. The combination, in a fagot-machine, of a hopper and a trunk having the holding levers

*J*, with a fagot-forming mechanism having a steam-cylinder carried in a revolving disk, a cradle on the piston-rod of said cylinder, and end-evening plates hinged to said disk, substantially as shown and specified. 7th. The combination of a fagot-forming mechanism composed of a steam-cylinder carried in a revolving disk, a cradle on the piston-rod of said cylinder, and evening-plates hinged to opposite sides of said disk, with a sliding-head moving on guides for carrying a binding-wire over the fagot, and provided with a twister for securing the wire around the fagot, substantially as herein shown and described.

### No. 37,749. Gravity Scalper, Grader and Bolter.

(*Appareil à gravitation et bitoir.*)

Frank Noble and Hiram Snyder, both of Minneapolis, Minnesota, U.S.A., 9th November, 1891; 5 years.

*Claim.*—1st. The combination with a spring bar having a rigid central portion and flexible ends secured to relatively fixed supports of a sieve mounted on the rigid portion of said bar and solely supported thereby and a knocker adapted to strike said bar and impart vibration to said sieve. 2nd. The combination with a suitable frame of a pair of spring bars having rigid central portions and flexible ends, adjustable devices for adjustably securing the ends of said bars to said frame, a sieve mounted on the rigid portions of said bars and supported solely thereby, and knockers for striking the rigid portion of said bars and imparting vibration thereto, substantially as described. 3rd. The combination with a spring bar having a rigid central portion and flexible ends secured to relatively fixed supports, of a curved sieve centrally mounted on the rigid portion of said bar and a knocker for striking said bar and imparting vibration to said sieve, substantially as and for the purpose set forth. 4th. A gravity scalper comprising a suitable frame, a series of sets of spring bars, one pair for each sieve, having rigid central portions and flexible ends secured to relatively fixed supports, a series of curved sieves centrally mounted one on each set of said spring bars and solely supported thereby, and knockers for striking the rigid portions of said bars and imparting vibration to the sieve, substantially as described.

### No. 37,750. Subway for Electric Wires.

(*Couduits souterrains pour fils électriques.*)

William Readman and George Dwyer Bond, both of Toronto, Ontario, Canada, 9th November, 1891; 5 years.

*Claim.*—1st. In a subway for electric wires, the combination of a casing having one of its side pieces cut away at its upper end to form a seat and provided at regular intervals with openings, a series of longitudinal tubes within said casing for the reception of the wires, a removable seat provided with an inwardly and upwardly extending flange, and a cover for the opening provided with depending flanges adapted to overlap the flanges of the casing and removable side pieces, substantially as set forth. 2nd. In a subway for electric wires, the combination of a casing having one of its side pieces cut away at its upper end to form a seat and provided at regular intervals with openings, a series of longitudinal tubes within said casing for the reception of the wires, a removable side piece provided with an inwardly and upwardly extending flange, and also provided with a laterally extending web which forms a covering for the side opening or manhole in the masonry, the end of said web adapted to rest in a countersunk seat in the roadway and a cover for the opening in the casing, provided with depending flanges adapted to overlap the flanges of the casing and removable side piece, substantially as set forth. 3rd. In a subway for electric wires, the combination with a casing or conduit for electric wires, provided at regular intervals with vertical openings and one of its sides provided with openings, of a removable piece fitted to said side opening, said side piece provided at its lower end with a tenon adapted to fit in a socket in the casing and at its upper end with an angular flange, and a cover for the vertical opening provided with a depending flange adapted to overlap the flange of the removable piece, substantially as described. 4th. A subway for electric wires, consisting of forming in the curbing a channel or series of channels *B*, in combination with the wires *b*, tubes or cables *C*, *e*, openings *D*, cover *E*, having downwardly projecting flanges *e*, *e'*, curbing *A*, having upwardly projecting flanges *a*, removable piece *F*, having flanges *f*, *f'*, web *g*, countersunk seat *h*, formed in the roadway *H*, and manhole *G*, substantially as and for the purpose set forth.

### No. 37,751. Eyelet. (*Oeillet.*)

George Sutherland and Frederick James Herbert, both of Montreal, Quebec, Canada, 9th November, 1891; 5 years.

*Claim.*—As a new article of manufacture an eyelet substantially oblong or elongated in horizontal section as shown.

### No. 37,752. Car Coupler. (*Attelage de chars.*)

George Anderson Patten and John Thomas Webber, both of Red Lodge, Montana, U.S.A., 9th November, 1891; 5 years.

*Claim.*—1st. The combination of a car, the vertically movable coupler head provided with a recess in its lower face adapted to receive a headed link, a bottom plate arranged beneath the coupler head, and a rock shaft having an arm arranged to engage the coupler head and lift the same, substantially as described. 2nd. The combination of a car provided with parallel sills *2*, the vertically movable draw bar having a coupler head which is provided with a recess to receive a headed link, the bottom plate arranged beneath the draw bar and secured to the sills and provided with an opening, the cross plates *16*, between the sills and retaining the bottom plate in place, and a lug depending from the draw bar and engaging the opening in the bottom plate, substantially as described. 3rd. The

combination of a car, a vertically movable coupler head having a recess in its lower face adapted to engage a headed link, the bottom plate arranged beneath the coupler head, the rock shaft arranged to engage the coupler head and having its outer end bent at an angle and forming an arm, the lever fulcrumed on the side of the car and provided with a flanged segment, a chain connecting the lever and the arm of the rock shaft and adapted to be wound on the segment, and the ratchet, substantially as described.

### No. 37,753. Mechanical Movement.

(*Transmission du mouvement.*)

Sigismund B. Wortmann, New York, State of New York, U.S.A., 9th November, 1891; 5 years.

*Claim.*—1st. The combination with an axle, a spring drum, and differential gearing, of an automatic clutch adapted to free the differential gearing from the spring axle, substantially as described. 2nd. The combination with an axle, a spring and drum, of differential gearing having its wheels rigid with the drum and loose on the axle, of an automatic clutch normally engaged with the loose wheel and adapted to be released therefrom when the spring reaches its limit in unwinding, substantially as described. 3rd. The combination with an axle, a spring and drum, of differential gearing having one of its wheels rigid with the drum and another wheel loose on said axle, and clutch mechanism rigid with the axle and normally engaged with the loose wheel, substantially as described, for the purpose. 4th. The combination with an axle and a spring and drum of differential gearing having a counter shaft provided with wheels which are engaged by two wheels loose on the spring axle, one of said loose wheels being rigid with the drum, and an automatic clutch keyed to the axle and adapted to engage with the loose wheel, substantially as described. 5th. The combination with an axle and a spring and drum, of differential gearing, substantially as described, having its loose wheel provided with a toothed or serrated hub, and a spring controlled clutch keyed to the shaft and engaging with the serrated hub of the loose wheel, substantially as described. 6th. The combination with a spring axle or shaft, of differential gearing constructed and operating to transmit the force of the spring to a loose wheel on the spring axle or shaft, and clutch mechanism carried by said axle and adapted to engage with the loose wheel, substantially as described.

### No. 37,754. Knife. (*Couteau.*)

Niels P. Nielson, Terre Haute, Indiana, U.S.A., 9th November, 1891; 5 years.

*Claim.*—1st. The combination, with the handle 4, provided with the integral bolster 5, having the ears 13, and a recess 6, which is open on one side and which is wider at its bottom or closed side than at its open side, of a knife-blade having a beveled tang 2 wider at one side than at the other to fit the said recess, and a notch 3, and the spring-pressed locking piece or lever 10, pivoted to the said ears and having the shouldered projection 14, substantially as set forth. 2nd. A knife-blade having a tang inclined toward its outer end, one of the sides thereof being wider than the other, and the front thereof being thicker than the back. 3rd. The combination, with a knife-blade having a tang inclined toward its outer end, one of the sides of the tang being wider than the other, and the front of said tang being thicker than the back, of a handle having a bolster with a recess corresponding to the shape of the tang, so that in use the strain is equalized and is taken up by the solid metal of the bolster. 4th. A knife-blade having a tang inclined toward its outer end and having a notch 3, in combination with a handle having an integral bolster provided with ears 13, and a recess 6 shaped to correspond with said tang, and a spring actuated locking piece having recesses 12 to receive the ears to which said locking piece is pivoted, and having at its forward end a shouldered projection which is adapted to engage the notch in the tang.

### No. 37,755. Apparatus for Manufacturing Gas. (*Appareil pour la fabrication du gaz.*)

George Miles Stuart Wilson, Toronto, Ontario, Canada, 9th November, 1891; 5 years.

*Claim.*—1st. A gas apparatus provided with a series of retorts forming a fire bed, and having a fire chamber below said retorts, substantially as described. 2nd. In a gas apparatus, a furnace having a series of retorts arranged side by side and extending from one side of the furnace to the other, a boiler over said retorts, and a fireplace on said retorts beneath the boiler, substantially as described. 3rd. In a gas apparatus, a series of retorts arranged side by side horizontally between the sides of the furnace, two separate retorts beneath said series on opposite sides of the furnace, elbows at the front from the upper side retorts to those immediately below, and elbows at the rear of the furnace from said lower retorts to the middle upper retort, and an inside return pipe or tube in the said middle retort from which the gas is discharged, substantially as described. 4th. In a gas apparatus, the furnace having removable front and rear plates, and a series of retort tubes supported in said furnace and separable and removable, substantially as described. 5th. In a gas apparatus, the series of retorts having communication one to the other, removable plugs in the ends of said retorts, and a steam pipe discharging into said retorts, whereby the retorts are cleaned, substantially as described. 6th. In a gas apparatus, a series of retorts 1, 2, and 3, arranged side by side, and the lower retorts 5 and 6 communicating with the retorts 1 and 3 at one end with the middle retort 2 at the other end, in combination with air, oil and steam supply pipes feeding into the ends of the retorts 1 and 3, and a return pipe for the gas centrally within the middle pipe 2, substantially as described.

### No. 37,756. Hot Air Furnace.

(*Calorifère à air.*)

William W. Sweetland, Edwardsburg, Michigan, U.S.A., 9th November, 1891; 5 years.

*Claim.*—1st. In a furnace, the herein-described base, consisting of an annular radiating chamber, the inner wall of which is provided with inwardly extending lugs or brackets to support the ash box, substantially as set forth. 2nd. In a furnace, the herein-described base, consisting of an annular radiating chamber sub-divided by transverse partitions into a series of compartments, in combination with the top plate or cover for each of said compartments, having annularly flanged openings adapted to be connected with the radiating flues or pipes, substantially as set forth. 3rd. In a furnace, the base consisting of an annular radiating chamber, the inner wall of which is provided with inwardly extending lugs or brackets, in combination with the ash-box provided with outwardly extending ears, by means of which it is supported upon said lugs or brackets, substantially as herein set forth. 4th. In a furnace, the combination, with the base consisting of an annular radiating chamber, the inner wall of which is provided with inwardly extending lugs or brackets, of the ash box supported upon said lugs or brackets, and having draft openings at diametrically opposite sides, and a rod or shaft extending transversely through said ash box, and having valves or dampers adapted to close the said draft openings simultaneously, substantially as herein set forth. 5th. In a furnace, the herein-described ash box, comprising a ring or casting having draft openings in diametrically opposite sides, and provided at its lower edge with an inwardly extending flange, an ash pit or drum extending downwardly from said flange and having a bottom provided with radial openings, and a centrally pivoted valve adapted to cover said openings, substantially as herein set forth. 6th. In a furnace, the combination of the base consisting of an annular radiating chamber having inwardly extending lugs or brackets, the ash box having lugs or ears resting upon said brackets, the fire pot mounted upon the upper edge of the ash box, and provided at its lower edge with an inwardly extending flange supporting the grate, the combustion chamber, the radiator, the connecting flues, and flues for carrying away the products of combustion, substantially as herein set forth. 7th. In a furnace, the combination of the base consisting of an annular radiating chamber, the top plates or cover for the same having annularly flanged openings, the ash box supported upon brackets extending inwardly from the inner wall of the base, the fire pot mounted upon the ash box, and the flue ring supported upon the upper edge of the fire pot, and having flanged openings connected by suitable elbow pipes with certain openings in the top plate of the base, substantially as herein described and for the purpose set forth. 8th. In a furnace, the combination, with the base consisting of an annular radiating chamber having lugs or brackets projecting inwardly from its inner walls, of the ash box mounted upon said lugs or brackets, the fire pot supported upon the ash box, the flue ring resting upon the upper edge of the fire box, the annular casing or combustion chamber mounted upon the upper edge of the flue ring, the dome or top having the centrally located upwardly extending smoke pipe, the radiator, and the connecting flue, substantially as and for the purpose herein set forth. 9th. In a furnace, the combination of the base consisting of an annular radiating chamber having inwardly extending brackets, the top plates or covers for the same having annularly flanged openings, the furnace casing comprising the ash box, having ears or lugs supporting it upon the brackets of the base, the fire pot, the flue ring, the annular casing or combustion chamber, and the dome having centrally located upwardly extending smoke pipe, the annular radiating chamber composed of pipe sections suitably connected and surrounding the smoke pipe or flue, vertical flues connecting said radiating chamber with certain of the openings in the top plate of the base, elbow pipes connecting the remaining openings in the top plate of the base with the openings in the flue ring, elbow pipes connecting the upper side of the radiating chamber with the exit flue, and a damper arranged in the latter below said elbow pipes, substantially as and for the purpose herein shown and specified. 10th. In a furnace, the combination of the base consisting of an annular radiating chamber, the furnace casing supported upon lugs or brackets extending inwardly from the inner wall of said base, and having the flue ring constructed and arranged as herein described, and the top or dome provided with a centrally located upwardly extending smoke pipe or exit flue, the annular radiating chamber surrounding said flue, vertical pipes connecting said radiating chamber with the top of the radiating base, elbow pipes connecting the latter with the flue ring of the furnace casing, elbow pipes connecting the upper radiator with the exit flue, a damper arranged in the latter below said elbow pipes, and transverse partitions arranged, respectively, in the base and in the upper radiator, and sub-dividing them into compartments, each of the compartments in the base being connected with the flue ring of the furnace casing, and also with the upper radiator, substantially as and for the purpose herein set forth. 11th. In a furnace, the herein-described annular radiator, composed of a series of pipe sections suitably joined or connected together, each of said pipe sections having one end closed and the other end open for the admission of the closed end of the next adjoining pipe-section, substantially as and for the purpose herein shown and specified. 12th. The annular radiator composed of pipe-sections suitably connected or joined together, each of said sections having one end closed and the other end open for the admission of the closed end of the next adjoining section, and each section being further provided with a door through which soot and obstructions may be removed, substantially as set forth. 13th. In a furnace, the combination of an annular radiating chamber or base divided into independent compartments, so as to leave an open space for the passage of air between the inner wall of said base and the furnace casing, an annular radiating chamber surrounding the exit flue, vertical pipes connecting said annular radiator with the compartments of the radiating base, pipes connecting the compartments of the latter with the furnace casing, pipes connecting the upper annular radiator with the exit flue, and a damper arranged in the latter below said pipes, all combined and arranged substantially as and for the purpose herein set forth.



**No. 37,757. Apparatus for Milking Cows.***(Appareil pour traire les vaches.)*

William Murchland, Kilmarnock, Ayr, Scotland, 9th November, 1891; 10 years.

*Claim.*—1st. In apparatus for milking cows, the combination of two tanks situated at different levels and connected by a pipe, an air pipe leading from the top of the higher tank, and a branch and main pipes from said air pipe leading respectively to a pump and to the several cow stalls, flexible branch pipes provided with stop cocks and connected with said main pipes, a milk receptacle to which said flexible branch pipes are connected, and mouth pieces or cups, provided with stop cocks, for application to the cows' teats, and connected with said milk receptacle, as shown and described. 2nd. In milking apparatus, the connecting of a pipe from air exhausting apparatus to a milk receptacle or collector which is separated, connected to the teat cups, combined with the application of a liquid column to regulate the degree of exhaustion, substantially as hereinbefore described. 3rd. In apparatus for milking cows, a milk receptacle or collector having a body and neck, the latter centrally apertured and closed by a glass dish resting on a rubber ring or washer held in such neck, nozzles communicating with said neck below the central aperture and its stopper, and a suspending strap adapted to pass over the cows' back, and be hooked to the body of the receptacle, as shown and described. 4th. In apparatus for milking cows, a teat cup or mouth-piece having an outer metal shell provided with a stop cock close to the top or lip of the cup, and an inner perforated elastic tube of less diameter than the outer shell, and furnished with a thin perforated metal ring to which it is attached, and which serves to support it from the inner open end of said shell, as set forth.

**No. 37,758. Seal. (Secau.)**

Andrew Jackson Phelps, Syracuse, New York, U.S.A., 10th November, 1891; 5 years.

*Claim.*—1st. A package seal, consisting of a spherically tubular body, open at its upper and lower ends, and having prongs at its lower end, and a screw inserted through said openings, and having its head within the tubular body. 2nd. A package seal, consisting of a spherically tubular body, contracted at its upper and lower ends, and open thereat, a screw inserted vertically through the open ends, and a filling inserted into the body and compressed to fill it.

**No. 37,759. Skate. (Patin.)**

Ubel Wierda, Winsum, Groningen, Holland, 10th November, 1891; 5 years.

*Claim.*—1st. The combination in a skate, of a body having an upwardly turned heel plate, of a latch device at the heel plate adapted to engage a projection on the side of a shoe heel, substantially as described. 2nd. The combination in a skate, of a body, a reversible blade detachably held thereto, and pivotal stays for bracing said blade, substantially as described. 3rd. The combination in a skate, of a body having laterally-projecting studs *B'*, having radial projections *b*, of a blade having apertures *a'* with lateral slots *d'* communicating with said apertures, substantially as described. 4th. The combination in a skate, of a body having laterally-projecting studs, and a blade having openings for receiving said studs, and a key for engaging said studs, substantially as described. 5th. The combination in a skate, of a latch having an opening for receiving a projection or pin on a boot or shoe, substantially as described. 6th. The combination, with a skate, of a wing screw having an eye to pass over a pin or stud, and provided externally with screw threads adapted to engage a countersink in the heel of a boot or shoe, substantially as described. 7th. In a skate, the combination of the blade having perforations adapted to receive studs, the body having studs adapted to pass through perforations in said blade, and means for locking, substantially as set forth. 8th. In a skate, the combination of a blade *A*, having perforations *a'*, a skate body *B*, having slotted studs *B'*, and a key *C* having thickened point *c'*, substantially as set forth. 9th. In a skate, the combination of a body having downward projections adapted to receive a detachable blade, said projections provided with lateral studs, with means of securing said blades, a blade having each edge different from the other, and having perforations to receive studs on the body, said perforations being nearer one edge than the other, substantially as set forth.

**No. 37,760. Feeder and Band Cutter for Thrashing Machines. (Appareil à couper les harts et à alimenter les machines à battre.)**

Victor E. Calderwood and Arthur Le Sueur, Arvilla, North Dakota, U.S.A., 10th November, 1891; 5 years.

*Claim.*—1st. The combination of the feeder-casing, the longitudinally-reciprocating feeder-bars having downwardly-extending flanges and provided with longitudinal guide-bars upon their under sides near their front ends, the crank-shaft having arms or cranks journaled in boxes or bearings upon the under sides of said feeder-bars, and a hinged plate having suitably-arranged boxes or bearings for the guide-bars at the rear ends of said feeder-bars, substantially as and for the purpose set forth. 2nd. The combination of the feeder-casing, the longitudinally-reciprocating feeder-bars having downwardly-extending flanges, a shaft having arms or cranks journaled in boxes arranged between the flanges upon the under sides of said feeder-bars, the longitudinal guide-bars at the front ends of said feeder-bars, and a feed-board arranged adjustably at the rear end of the feeder-casing and having boxes or bearings for the said guide-bars, substantially as set forth. 3rd. The combination of the feeder-casing, the longitudinally-reciprocating feeder-bars having guide-bars, a feed board at the rear end of the casing, a

plate hinged to said feed-board and having boxes or bearings in which the guide-bars of the feeder-bars are slidingly mounted, and the shields mounted at the front and rear ends of the casing, substantially as set forth. 4th. The combination of the feeder-casing, the feed-board at the rear end of the same, the supplemental board hinged to the said feed-board, the longitudinally-reciprocating feeder-bars having their front ends connected with cranks upon a revolving shaft, and the guide-bars upon the under sides of the rear ends of said feeder-bars, mounted slidingly in boxes upon the hinged supplemental feed-board, substantially as and for the purpose set forth. 5th. In a feeding device for thrashing-machines, the combination, with a suitable casing, of the longitudinally-reciprocating feeder bars having their rear ends mounted slidingly in a feed-board which is adjustable in said casing, substantially as herein set forth. 6th. In a feeding device for thrashing-machines, the combination of a suitable casing, the longitudinally-reciprocating feeder-bars provided at their front ends with boxes journaled upon the cranks of a shaft mounted transversely in said casing, and a longitudinally-adjustable board having a hinged supplemental board with which the rear ends of said feeder-bars are slidingly connected, substantially as set forth. 7th. The combination with the main feeder-casing provided at the upper edges of its side pieces with longitudinal shafts, of the carrier-frames hinged upon said shafts and having curved slots, the arms pivoted upon the ends of said shafts, the knife-carrying shafts journaled at the outer ends of said arms, and means for transmitting motion to the said knife-carrying shafts, substantially as and for the purpose set forth. 8th. The combination of the main feeder-casing having the longitudinal shafts at the upper edges of its side pieces, the carrier-frames hinged upon said shafts and provided at their outer ends with longitudinal shafts, the endless carriers mounted upon the shafts at the inner and outer ends of the carrier-frames, and the pivoted arms having the revolvable shafts provided with spirally-arranged serrated knives or cutters, substantially as and for the purpose set forth. 9th. In a band-cutting attachment for thrashing-machine feeders, the herein-described knife-carrying shafts mounted in pivoted arms and having spirally-arranged serrated knives or cutters, in combination with suitably-arranged springs to force the said knife-carrying shafts into engagement with the sheaves, substantially as set forth. 10th. The carrier-frames having the endless carriers, the pivoted end boards, and the pivoted spring-actuated boards or deflectors, substantially as and for the purpose herein set forth. 11th. The combination, with the carrier-frames having vertically-movable spring-actuated shafts provided with spirally arranged knives or cutters, of the pivoted end boards and the spring-actuated deflectors arranged below and in front of the said outter-shafts, substantially as and for the purpose set forth.

**No. 37,761. Jet Apparatus. (Appareil à jet.)**

Louis Schutte, Philadelphia, Pennsylvania, U.S.A., 10th November, 1891; 5 years.

*Claim.*—1st. In a jet apparatus, and in combination with its actuating nozzle and one or more mixing nozzles, a throttle to control the delivery from the actuating nozzle and a vacuum mechanism to control the throttle communicating with the interior of the apparatus and exhausted by the current passing therethrough. 2nd. In a jet apparatus, a throttle to control its actuating jet, a pipe leading into the interior of the apparatus in position to be exhausted by the outgoing current, and an intermediate mechanism substantially as shown through which the vacuum is applied to operate the throttle. 3rd. In a jet apparatus, comprising the actuating and mixing nozzles and the throttle, the weight or its equivalent tending to close the throttle and the vacuum mechanism to open the throttle, constructed and arranged to be exhausted by the current passing through the nozzles. 4th. In a jet apparatus, the throttle to control the actuating jet, its rack bar, the pinion, pinion shaft, and crank on the shaft, and the pipe connected at one end to the cylinder and exposed at the other end to the passing nozzle, the final mixing nozzle, the support for a second nozzle, and the support for the external casing all cast in one piece as described and shown.

**No. 37,762. Road Cart. (Desobligeante.)**

John Vandyke, Sr., Grimsby, Ontario, Canada, 10th November, 1891; 5 years.

*Claim.*—1st. In a road cart, the combination, with the shafts and axle, of equalizing bars pivoted to clips or braces on the axle under or above it, substantially as and for the purpose specified. 2nd. In a road cart, the combination with the shafts and axle, of two half springs *A, A*, equalizing bars *D, D*, connected together by cleaves or the equivalent, all constructed and arranged substantially as and for the purpose specified. 3rd. In a road cart, the combination of axle *B'*, shafts *A, A'*, springs *A, A*, equalizing bars *D, D*, clips *b'*, lugs *b*, and cleaves *E*, or the equivalent, substantially as and for the purpose specified.

**No. 37,763. Machine for Boring Soil Under Water. (Appareil à percer la terre sous l'eau.)**

James Canan, Port Colborne, Ontario, Canada, 10th November, 1891; 5 years.

*Claim.*—1st. A casing arranged to contain a turbine fixed to a vertical shaft suitably supported and extending through the bottom of the said casing and a pipe constructed and arranged to supply water under pressure to and downward through said casing, substantially as and for the purpose specified. 2nd. A casing arranged to contain a turbine fixed to a vertical shaft suitably supported and extending through the bottom of the said casing, which casing is provided with upwardly directed openings for the escape of the water forced into it, and a pipe constructed and arranged to supply water under pressure to said casing whereby it is driven through said

openings, substantially as and for the purpose specified. 3rd. A casing arranged to contain a turbine fixed to a vertical shaft suitably supported and extending through the bottom of the said casing in combination with cutting blades fixed to the said shaft outside of the said casing and a pipe constructed and arranged to supply water under pressure to said casing, substantially as and for the purpose specified. 4th. A casing connected to a pump and arranged to contain a turbine fixed to a hollow shaft suitably supported and extending through the bottom of the said casing, which casing is provided with upwardly directed openings for the escape of the water forced into it, in combination with a propeller or archimedian screw fixed to the hollow shaft within its casing, substantially as and for the purpose specified. 5th. A casing connected to a pump and arranged to contain a turbine fixed to a hollow shaft suitably supported and extending through the bottom of the said casing, which casing is provided with upwardly directed openings for the escape of the water forced into it, in combination with a propeller or archimedian screw fixed to the hollow shaft within its casing, and with cutting blades fixed to the said shaft outside of the said casing, substantially as and for the purpose specified. 6th. A casing, a rotating vertical shaft to rein projecting through the bottom, and a pipe constructed and arranged to supply water under pressure to and downward through said casing, substantially as and for the purpose specified. 7th. A casing, a rotating hollow shaft therein projecting through the lower end of the casing, and a pipe supplying water under pressure to said hollow shaft, substantially as and for the purpose specified. 8th. A casing, a rotating hollow shaft therein projecting through the lower end of the casing, cutters on said projecting end, and a pipe for supplying water under pressure to said hollow shaft, substantially as and for the purpose specified. 9th. A casing, a pipe supplying water to said casing and a rotating shaft carrying a propelling wheel thereon constructed and arranged to act on the water and increase its pressure, substantially as and for the purpose specified. 10th. A casing, a rotating hollow shaft therein, having a projecting end adapted to loosen the soil, and a pipe arranged to convey water to said hollow shaft, substantially as and for the purpose specified. 11th. A casing, a hollow rotating shaft therein, having its lower end projecting through the casing and provided with cutters, and a pipe adapted to convey water to said hollow shaft, substantially as and for the purpose specified.

### No. 37,764. Bee Swarmer. (*Ruche d'abeilles.*)

Nelson C. Petrie, Cherry Valley, and Craydon J. Petrie, Cleveland, both in Ohio, U.S.A., 10th November, 1891; 5 years.

*Claim.*—1st. The combination of the box having the perforated sides, and having at its top the cover formed with the series of openings adapted to permit of the passage through them of the workers, but prevent the passage of the drones and queen, the horizontally disposed conical tubes removably fitted within the box, and having their apexes pointed in the same direction, and perforated guideways having each an open side and leading from the ends of the box to mouths of the hives, substantially as set forth. 2nd. The combination of a box having openings in its ends, a perforated trap door in its top, and provided with perforated sides, the perforated guideways leading from the end openings to the mouths of the hives, conical tubes removably fitted in the box, and a vertically swinging partition within the box, as set forth.

### No. 37,765. Barrel Stand. (*Chantier de baril.*)

Gilbert Laurin, Joseph Laurin and Efrème Lemay, all of St. Paul de Joliette, Quebec, Canada, 10th November, 1891; 5 years.

*Claim.*—In a barrel stand, the combination with the rod R, of the flange socket B, and flanged thimble C, holding the said rod, the arm D, free to turn on said rod, having an upturned end E, and shoulder F, the arm G, free to slide and turn on the said rod and having a concave groove H, formed at its outer end, substantially as set forth.

### No. 37,766. Plow. (*Charrue.*)

Robert Bruce McKay, Loganport, and Bailey A. Roper, Tenaha, Texas, both in U.S.A., 10th November, 1891; 5 years.

*Claim.*—1st. In a reversible plow, the combination of the wheel, the handle-bars, the share-carrying frame pivoted to the handle-bars, the shares secured to the frame and arranged on opposite sides of the wheel, the curved rack-bar secured to the frame, a cog-wheel arranged to engage the rack-bar, and means for securing the parts at any desired adjustment, substantially as described. 2nd. In a reversible plow, the combination of the wheel, the handle-bars, the share-carrying frame comprising the diverging standards, and the cross-bars connecting the standards and pivoted intermediate its ends to the handle-bars, the shares secured to the standards, the curved rack-bar attached to the inner ends of the standards, a cog-wheel arranged to engage the rack-bar, and a pawl pivoted to the handle-bars and arranged to engage the cog-wheel, whereby the parts are secured at any desired adjustment, substantially as described. 3rd. In a reversible plow, the combination of the wheel, the handle-bars, the share-carrying frame pivoted to the handle-bars, the shares secured to the frame and arranged on opposite sides of the wheel, the curved rack-bar secured to the frame, a shaft journaled in suitable bearings and provided at one end with a handle, a cog-wheel mounted on the shaft and arranged to engage the rack-bar, and the double pawl approximately U-shaped and having inwardly-bent ends arranged to engage the cog-wheel, substantially as described.

### No. 37,767. Cuspidor. (*Crachoir.*)

Charles Goldie, Chicago, Illinois, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. In a cuspidor, the combination of a frame, a receptacle contained in the frame, a cover pivoted to the frame, a lever,

one end whereof consists of cast metal and extends beyond the frame, the other end whereof consists of a ring extending around the receptacle in the frame and connected by a link to the pivoted cover, a fulcrum for such lever on the frame, and near the attachment of the ring part of the lever to the cast metal part thereof, whereby upon depressing the end of the lever extending beyond the frame, the cover is opened, substantially as described. 2nd. In a cuspidor, the combination of a frame, a receptacle contained in the frame, a cover pivoted to the frame, a lever, one end whereof consists of cast metal and extends beyond the frame, the other end whereof consists of a ring extending around the receptacle in the frame and connected by a link to the pivoted cover, a fulcrum for such lever on the frame, and near the attachment of the ring part of the lever to the cast metal part thereof, and a hook-catch pivoted to the cast metal part of the lever on the under surface of such cast metal part, and a catch secured on the under side of the cover adapted to engage with the pivoted hook-catch when the cover is closed, whereby upon turning the hook-catch upon its pivot and depressing the end of the lever extending beyond the cover, the hook-catch is depressed therewith and the cover of the receptacle is raised, substantially as described. 3rd. In a cuspidor, the combination of a frame, a receptacle contained in the frame, a cover pivoted to the frame, a lever, one end whereof extends beyond the frame, and the other end whereof is connected by a link to the pivoted cover, a fulcrum for such lever on the frame and between the attachment of the link thereto, and the end thereof extending beyond the frame, and a rigidly attached arm secured to the above described lever beam also extending beyond the frame, whereby upon depressing one of the projecting parts of the lever the cover is opened, and upon depressing the other of such projecting parts the cover is closed, substantially as described.

### No. 37,768. Clothes Line. (*Ligne d'étendage.*)

Augustus Henry Hoskins, Niagara, Ontario, Canada, 13th November, 1891; 5 years.

*Claim.*—A rope or line, F, carried around the pulley, G, journaled in the bar, H, suspended from the post, I, in combination with the pulleys, E, journaled in the plate D, supported by the post, A, substantially as and for the purpose specified.

### No. 37,769. Picture Frame. (*Cadre pour images.*)

John F. McBride, Chicago, Illinois, U. S. A., 13th November, 1891; 5 years.

*Claim.*—1st. In a picture-frame A, the combination of a back C, a front B, formed of a sheet of suitable flexible material cut to form sections bent back to produce the display-opening, having convex bulging margins r, and ornamental fastenings q, securing the sections at their free ends to the frame, substantially as described. 2nd. In a picture-frame A, the combination of a back C, a front B, formed of a sheet of suitable flexible material severed by a cross-cut through the center, forming V-shaped sections bent back to produce the display-opening, having convex bulging margins r, and ornamental fastenings q, securing the sections at their free ends to the frame, substantially as described. 3rd. As a new article of manufacture, a picture-frame A, having the back C, the front B, of sheet-celluloid severed by a cross-cut through the center, thereby forming V-shaped sections bent back to produce the display-opening, having convex bulging margins r, and ornamental fastenings q, securing the sections at their apexes to the frame, substantially as described. 4th. As a new article of manufacture, a picture-frame A, comprising, in combination, a back C, a front B, of sheet-celluloid severed between defining apertures p by a cross-cut through the center, thereby forming V-shaped or substantially V-shaped sections bent back to produce the display-opening, having convex bulging margins r, ornamental fastenings q, securing the sections at their free ends to the frame, and a sheet D of transparent celluloid interposed between the back and front and covering the display-opening, substantially as described.

### No. 37,770. Hydraulic Dredging Apparatus.

(*Appareil de dragage hydraulique.*)

Henry Ward Brown, Cambridge, Massachusetts, U. S. A., 13th November, 1891; 5 years.

*Claim.*—1st. In a dredging machine, the combination with an oscillatory frame and a suction pipe, of a rotary agitator carried by a shaft at one side of the suction pipe and comprising a conical hood having upwardly and downwardly projecting cutters at its periphery, substantially as described. 2nd. In a dredging apparatus a conical hood secured to a rotary shaft and having secured to its periphery upwardly and downwardly projecting cutters, substantially as and for the purpose set forth. 3rd. In a dredging apparatus, a rotating conical hood, having curved wings or ribs U, on its upper side and having secured to its periphery a series of upwardly and downwardly projecting cutters, substantially as and for the purpose set forth. 4th. In a dredging apparatus, a telescopic suction pipe and a vertically adjustable rotary agitator shaft arranged outside of the same, combined with a conical hood secured to said agitator shaft and having secured to its periphery a series of upwardly and downwardly projecting cutters, substantially as and for the purpose set forth. 5th. The herein described rotary agitator, consisting of a conical hood, a ring U, secured to the periphery of said hood and having its arms U<sup>1</sup>, U<sup>2</sup>, secured to a rotary driving shaft, combined with upwardly and downwardly projecting cutters secured to the periphery of said ring or hood, substantially as and for the purpose set forth. 6th. In a dredging apparatus, a knife carrying hood secured to a rotary shaft arranged outside of the suction pipe, combined with a valve chamber having a branch or conduit E, in which the upper end of said hood is journaled, and a telescopic suc-

tion pipe, substantially as and for the purpose set forth. 7th. In a dredging machine, the combination with a vertically adjustable shaft, of a rotary agitator comprising the ring C', the upwardly and downwardly projecting cutters D', D, provided, respectively, at their adjacent ends with the notches or recesses d', d, in which the ring is clamped, and a ring D<sup>11</sup>, connecting the upwardly projecting cutters, substantially as described. 8th. In a dredging apparatus, scow or vessel having secured to its deck a segmental rack, combined with an oscillating suction pipe and agitator carrying frame having a vertical shaft O', and a pinion O<sup>8</sup>, on the same meshing in the upright teeth of the said rack, substantially as and for the purpose set forth. 9th. In a dredging apparatus, the combination with a scow or vessel, of an oscillating frame mounted thereon and carrying a lateral beam B<sup>8</sup>, provided with guide pulleys, two power driven drums Q', Q<sup>11</sup>, mounted on a single shaft Q, journaled on the frame, a rotary agitator and telescopic suction pipe, two hoisting chains or cables R, leading from the two drums over the pulleys on the lateral beam and serving as diagonal braces for and adapted to raise and lower the agitator, and a clutch Q<sup>3</sup>, located on the drum shaft, for disconnecting one of the drums from the drum shaft to automatically swing the agitator laterally out of the water, substantially as described. 10th. In a dredging apparatus, a rotary conical hood having secured to it a series of downwardly projecting cutters having their upper ends united together by means of a ring D<sup>11</sup>, substantially as and for the purpose set forth.

**No. 37,771. System of Hot Water Circulation.** (*Système de circulation de l'eau chaude.*)

Russell Bottsford, Cleveland, Ohio, U. S. A., 13th November, 1891; 5 years.

*Claim.*—1st. In combination, in a hot water heating apparatus, a water heater, a primary system of water circulating pipes provided with suitable radiators, a discharge pipe communicating with the supply pipe outside of the point of intersection between said supply pipe and the return pipe of the system, a shunt pipe communicating with said return pipe and with the discharge pipe, a valve in said return pipe between the supply pipe and said shunt pipe, a valve in the waste pipe between the supply and the point of intersection between said shunt pipe and said waste pipe, and a valve in said shunt pipe, the parts being constructed, arranged and operating substantially in the manner and for the purposes herein described. 2nd. In a hot water heating apparatus, the combination of a stove, a manifold located within the combustion chamber of said stove, a primary system of piping terminating in a return pipe which communicates with a supply pipe, a shunt pipe which communicates with said return pipe and with a waste pipe, which latter communicates with the supply pipe, a valve located in said return pipe between the supply pipe and the point of intersection of said shunt pipe with said waste pipe, a valve in said shunt pipe, a valve in said supply pipe, located outside the point of intersection between said supply pipe and said waste pipe, when constructed, arranged and operating substantially in the manner and for the purposes set forth.

**No. 37,772. Leather Feeder.**

(*Alimentateur pour le cuire.*)

Matthew Currie Tanner, Hawkesville, Ontario, Canada, 13th November, 1891; 5 years.

*Claim.*—A series of vats arranged from A, to B, connected together by a series of tubes D, arranged so that the liquor will flow from the top of one vat into a channel at the bottom of the next vat escaping from the said channel into the latter vat through a narrow longitudinal slit or opening a, substantially as and for the purpose specified.

**No. 37,773. Rubber Cushions for Billiard Tables.** (*Bande de caoutchouc pour tables de billiard.*)

Alexander Henry Costigan, Montreal, Quebec, Canada, 13th November, 1891; 5 years.

*Claim.*—1st. The groove g, h, k, in the surface of the rubber cushion. 2nd. The sloping of the portion g, f, substantially as and for the purpose hereinbefore set forth.

**No. 37,774. Frog for Railways.**

(*Rail de croisement.*)

Albert M. Grubbs, Forest Grove, Oregon, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. The elevated rail forming a portion of the inner siding-rail terminating adjacent to the inner side of the inner-line rail and having its ends inclined downwardly to a level with the main-track rails, in combination with the inner main-line rail having a portion of its head removed on its outer side, substantially as set forth. 2nd. The elevated rail forming a portion of the inner siding-rail and terminating adjacent to the inner side of the inner main-line rail, in combination with the inner main-line rail having a portion of its head removed on its outer side, substantially as set forth. 3rd. The combination of the main-line rails 1, 2, the latter having a portion of its head removed on its outer side, the siding-rails 3, 4, the elevated-rail 6, having the outwardly-turned end 7, said elevated-rail being placed parallel to the inner main-track rail, and the guard-rail 10, substantially as and for the purpose set forth.

**No. 37,775. Gate.** (*Barrière.*)

Selim D. Hathaway, Gilead, Michigan, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. The combination of the post, the hanger hinged to the post, the bracket hinged to the outer end of the hanger and pro-

vided with a pivot, and the gate centrally mounted upon the pivot, substantially as described. 2nd. The combination of the post, the hanger hinged to the post and provided with the hooks 26, arranged upon opposite sides, and the gate hinged to the hanger at a point intermediate of its ends and adapted to swing upon either side of the hanger and engage the hooks thereof, substantially as described. 3rd. The combination of the post, the hanger hinged to the post, the bracket hinged to the end of the hanger and provided with a horizontal pivot, and the gate provided intermediate of its ends with a vertical series of perforations adapted to receive the pivot, substantially as described. 4th. The combination of the post, the hanger hinged to the post, the gate pivoted intermediate of its ends to the hanger and provided with spurs arranged to engage the ground to hold the gate at any desired point, and the removable weight, substantially as described. 5th. The combination of the post, the hanger hinged to the post, the bracket comprising the vertical portion and the horizontal portions or arms, and provided with the horizontal pivot, the pin passing through the horizontal portions or arms and hinging the bracket to the end of the hanger, and the gate mounted upon the pivot, substantially as described. 6th. The combination of the hinge and latch-posts, the hanger provided with supporting-hooks arranged on opposite sides, and the gate centrally hinged to the outer end of the hanger and having, when closed, one end supported by the latch-post and the other end supported by one of said hooks, substantially as described.

**No. 37,776. Bolster Bearing for Sleds.**

(*Selette de coussinet pour traîneaux.*)

John J. McMan and Amos Rippon, both of Wakeman, Ohio, U.S.A., 13th November, 1891; 5 years.

*Claim.*—A bolster-buckle for sleigh-knees, comprising the triangular block 4, having oppositely-inclined faces 7, and provided at its apex with the cylindrical socket and the integral plates 10, arranged at the sides of the block and at each end of the socket, and provided with central openings 11, concentric with the socket, the casting having the integral cylindrical eye 9, arranged in the socket and being composed of the horizontal bar 13, the vertical flanges 14, forming a recess 16, to receive a bolster, and the coupling-bolt passing through the side plate and the eye 9, substantially as described.

**No. 37,777. Combined Carpet Stretcher and Tack Driver.** (*Tendeur de tapis et machine à chasser la broquette combinés.*)

Linus Stewart Denison, Warren, Ohio, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. In a combined carpet-stretcher and tack-driver, a stretcher-head and a bar or handle perforated lengthwise from end to end, the stretcher-head being secured to such bar or handle, the latter having attached a tack-guide, substantially as indicated, the stretcher-head being provided with a receptacle adapted to receive the tack from the tack-guide, said receptacle terminating, at its lower end, in expansible clamping-mechanism, in combination with a hammer-rod adapted to reciprocate through said perforated bar or handle and drive the tack, and spring-mechanism adapted to be actuated by said hammer-rod, and comprising arms or members adapted to prevent the tack-guide from discharging more than one tack at a time, substantially as and for the purpose set forth. 2nd. The combination, with a bar or handle perforated lengthwise from end to end, and having secured thereto a tack-guide substantially as indicated, of a hammer-rod adapted to reciprocate through said perforated bar or handle, and a spring connected with said bar or handle, the free end of the spring being located in the path of said reciprocating hammer-rod and adapted to be actuated by said rod, said spring having arms or members adapted to alternately operate to prevent the tack-guide from discharging more than one tack at a time, substantially as and for the purpose set forth. 3rd. In a combined carpet-stretcher and tack-driver, a perforated stretcher-head and a bar or handle perforated lengthwise from end to end, the stretcher-head having upwardly-extending arms secured to said bar or handle, said arms being connected by a ferrule that embraces the lower end of the bar or handle aforesaid, the latter having attached a tack-guide, substantially as indicated, in combination with a hammer-rod adapted to reciprocate through said perforated bar or handle and stretcher-head, and a spring connected with the device, the free end of the spring being located in the path of said reciprocating hammer-rod and adapted to be actuated by said rod, said spring having arms or members adapted to control the feeding of the tack from the tack-guide, substantially as and for the purpose set forth.

**No. 37,778. Wire Suspension Hook.**

(*Crochet de suspension en fil de fer.*)

Charles Holman Thurston, Boston, Massachusetts, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. A bent-wire suspension-hook having a screw-shank B, a flattened base F, which surrounds said shank B, and a fin integral with the said shank, substantially as described. 2nd. A hook formed of continuous wire and containing the following parts integral with the said wire: a screw-shank B, a suspension-arm A, a brace C, and a flattened base F of different cross-section from the rest of the wire, substantially as described. 3rd. A hook formed of continuous wire and containing the following parts integral with the said wire: a screw-shank B, a suspension-arm A, a brace C, a flattened base F of different cross-section from the rest of the wire, and a fin f, integral with the arm A, substantially as described.

**No. 37,779. Knife Sharpener.**

(*Rémouleur de couteaux.*)

George Geer, Oxanna, Alabama, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. The herein described knife sharpener, consisting of

the frame A, having the base or flange *a*, at one end for securing it in place and at the other end two rounded heads *d*, *d*, with their faces offset so as to lie in different planes, and the two annular grooved rollers, each in the form of a series of truncated cones placed one upon the other, said rollers being loosely mounted on their axes against the offset faces of the heads *d*, *d*, and with their ridges overlapping each other, substantially as described, and for the purpose specified. 2nd. The herein described knife sharpener, consisting of a frame A, having the base or flange *a*, at one end for securing it in place and at the other end two rounded heads *d*, *d*, and the two annular grooved rollers, each in the form of a series of truncated cones placed one upon the other, said rollers being loosely mounted on their axes with their ridges overlapping each other, substantially as described, and for the purpose specified. 3rd. In a knife sharpener having a frame and pivoted roller provided with cutting edges, a cutting roller consisting of a solid piece of hardened metal having the form of a series of truncated cones placed one upon the other, the space between each cone-fustum forming an annular groove with a wall on one side at right angles to the axis of said roller and the wall on the opposite side at an inclined angle thereto, substantially as described, and for the purpose specified. 4th. In a knife sharpener having a frame and pivoted rollers provided with cutting edges, the herein described frame A, consisting of a body portion, the base or flange *a*, at one end for securing the frame in place, and the two rounded heads *d*, *d*, at the other end, the faces of said heads being offset and in different planes, whereby two like grooved rollers secured to said offset faces have their cutting edges in different planes, as described.

### No. 37,780. Spool Holder. (*Porte-bobine.*)

Silas G. Knight, Saint Johns, Newfoundland, 13th November, 1891; 5 years.

*Claim.*—A spool holder comprised of a rectangular bracket frame bent from a single piece of wire having two integral spring limbs projected at a right angle to the main portion of the frame, one spring limb being extended toward the other spring limb, producing a spool holding limb the free end of which may interlock with a hook formed on the adjacent end of the shorter spring limb, a stiffening guard plate the scrolled ends of which are attached to the vertical bars of the bracket frame, and a spring securing pins looped around one bar of the wire bracket frame through a slot in the guard plate and adapted to interlock with a latch plate at the opposite end of the guard plate, substantially as set forth.

### No. 37,781. Machine for Cutting Paper or Fabrics. (*Machine pour couper le papier ou tissus.*)

Thomas Berney, Tidioute, Pennsylvania, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. A machine for cutting paper or fabric material consisting of the combination of a cutting surface, a cutting edge attached to said cutting surface, and a roller to travel along said cutting edge, substantially as described. 2nd. A machine for cutting paper or fabric material consisting of the combination of a cutting surface, a cutting edge removably connected to said cutting surface, a roller to travel on said cutting edge and a shield to protect the cutting edge when not in use, substantially as described. 3rd. In a machine for cutting paper or fabric material, the combination of a cutting surface, a shield connected to the under side of said cutting surface, a knife bar connected to said shield, a cutting edge connected to said knife bar and means for attaching said cutting edge and knife bar to the cutting surface, and a roller to travel on said cutting edge, substantially as described. 4th. In a machine for cutting paper or fabric material, the combination of the cutting surface, a shield hinged to the under side of the cutting surface, a knife bar hinged to said shield, a cutting edge connected to said knife bar by means of clamps, catches connected to said knife bar engaging with lugs connected to the edge of the cutting surface, substantially as described.

### No. 37,782. Sheet Music. (*Feuille de musique.*)

Charles Felton Pidgin, Cambridge, Massachusetts, U.S.A., 13th November, 1891; 5 years.

*Claim.*—1st. A sheet of music provided with a coupon adapted to be cut or removed therefrom, as set forth. 2nd. A sheet of music provided with a coupon adapted to be cut or removed therefrom, and a cover for the space caused by the removal of the coupon, as set forth. 3rd. A sheet of music provided with a coupon adapted to be cut or removed therefrom, and a gummed coin holding sheet tacked to the back of the same, as set forth. 4th. A sheet of music provided with a coupon adapted to be cut or removed therefrom, and a cover larger in diameter than the coupon, said cover having a gummed edge, as set forth.

### No. 37,783. Attachments for Car Couplers.

(*Disposition aux attelages de chars.*)

Ianthus E. Marshall, Martinez, California, U. S. A., 13th November, 1891; 5 years.

*Claim.*—1st. The combination with a car coupling head, of the coupling pin, provided with forwardly extending supporting arms, working within the coupling head, operating lever secured to the car, and of the connecting medium for securing the operating lever and coupling pin, substantially as set forth and described. 2nd. The combination with a car coupling head, of the spring actuated rod secured within the same, movable shoe plate suitably connected to the spring actuated rod, coupling pin provided with forwardly extending supporting arms, and of the mechanism for raising said pin,

substantially as set forth and described. 3rd. In a car coupler, the combination with the coupler head, of the spring actuated rod located therein, movable shoe plate connected thereto and adapted to move therewith, and of the coupling pin adapted to be automatically released upon the movement of the movable shoe plate, substantially as set forth and described. 4th. In a car coupling, the combination with the coupling link thereof, of the operating lever for mechanically raising the coupling link sufficiently high to permit entrance into the coupling head of the opposite coupler, substantially as set forth and described. 5th. In a car coupler, the combination with the coupling link thereof, of the operating lever suitably secured to the car, downwardly extending rod secured thereto, operating weight pivotally secured to the rod, said weight being adapted with the movement of the lever to contact with and raise the coupling link sufficiently high as to permit entrance into the opposite coupling head, substantially as set forth and described. 6th. The combination with a car coupler, of the spring actuated operating lever, depending rod connected thereto, and of the coupling link adapted to mechanically be raised upon the upward throw of the depending rod, substantially as set forth and described.

### No. 37,784. Lawn Sprinkler.

(*Arrosoir pour pelouse.*)

Septimus Robert Campbell and Frank David Jillard, both of Toronto, Ontario, Canada, 13th November, 1891; 5 years.

*Claim.*—As an improved lawn sprinkler, a vessel having a conically-shaped body with a dome-shaped head perforated by holes at various angles and supplied with water under pressure, substantially as and for the purpose specified.

### No. 37,785. Vehicle Gear. (*Train de voiture.*)

William Luther Pike, Groton, New York, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The combination, with the rear axle and front head-block, of the centre and side springs connecting them, cross-springs connecting the aforesaid springs, the auxiliary springs connected at their rear ends to the axle, and at their forward ends to one of the cross springs, adjacent to the side springs, and connected to each other, and to the centrally longitudinal spring at their points of intersection. 2nd. The combination, with the rear axle and front head-block, the side springs connecting them, the downwardly-bent cross-springs connecting the side springs, the auxiliary springs connected to the rear axle and crossed and connected to the cross springs at their intersection therewith.

### No. 37,786. Nut Lock. (*Arrête-écrou.*)

Charles Arthur Thompson, Irwin, Pennsylvania, U. S. A., 14th November, 1891; 5 years.

*Claim.*—1st. In combination with a bolt having a longitudinal groove therein, a nut, and a strap or case encircling the nut, and having a series of spring-lips extending therefrom over the face of the nut to engage with the bolt, substantially as and for the purposes set forth. 2nd. In combination with the bolt having a longitudinal groove therein, and having a round or tapering point, as at *m*, a nut, and a strap or case encircling the nut, and having a series of spring-lips extending therefrom over the face of the nut to engage with the bolt, substantially as and for the purposes set forth. 3rd. In combination with a bolt having a longitudinal groove therein, a nut, and a strap or case encircling the nut, and having fingers extending back therefrom and passing onto the back of the nut, and provided with a series of spring-lips extending over the face of the nut to engage with the bolt, substantially as and for the purposes set forth.

### No. 37,787. Manufacture of Metallic Articles by Electrolysis, and Apparatus for that Purpose. (*Fabrication des objets métalliques par l'électrolyse, et appareil pour cet objet.*)

Alex. S. Elmore, Spring Grove, Hunslet, Leeds, England, 14th November, 1891; 5 years.

*Claim.*—1st. In the manufacture by electrolysis of cylindrical shells of metal to be cut into sheets, strips or rods, the herein described method of depositing on the mandril successive shells, providing against their adhesion to one another without removing the mandril from the bath. 2nd. For burnishing the metal deposited by electrolysis on a revolving mandril, a wheel of agate or other suitable material having its edge pressed against the mandril while it travels to and fro, rotating as it travels, substantially as described.

### No. 37,788. Automatic Merchandise Seller.

(*Appareil actionné par une pièce de monnaie pour la vente des marchandises.*)

Walter Howard Chamberlin, Chicago, Illinois, assignee of William George Latimer, Detroit, Michigan, both in U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. In an automatic merchandise-seller, the combination of a rotary disk arranged to be operated directly by a coin, a merchandise deliverer operated by the same, and a yielding arm normally held in contact with the disk, substantially as described. 2nd. In an automatic merchandise-seller, the combination of the rotary disk or wheel having segmental circular coin-bearings, a yielding arm having a slot, and an incline *k* in said slot, and the spring *O*, substantially as described. 3rd. In an automatic merchandise-seller, the combination, with a casing having merchandise and coin compartments, of coin operated mechanism arranged directly in the

path of an incoming coin, and automatic merchandise-delivering mechanism connected therewith, substantially as described. 4th. In an automatic merchandise-seller, the combination of the rotary disk or wheel having coin bearings, a yielding arm having a slot, and the incline A, the spring O, and reel E, operated by the rotation of the wheel L, substantially as described. 5th. In an automatic merchandise-seller, the combination of a casing having a delivery aperture, the offset G, and a slot formed partially in the vertical and partially in the horizontal walls of the casing, the rotary disk having segmental circular coin-bearings opposite the vertical portion of the slot, the yielding arm M, head N, forming a stop for the wheel L, stop P, incline A, spring O, and reel E, substantially as described. 6th. In an automatic merchandise-seller, the combination of the following elements: the casing A, having aperture E therein, door A', inclined partition D, guards H, reel F, and coin-operated mechanism for turning the reel, substantially as described. 7th. In an automatic merchandise-seller, the combination, with a rotary disk, of a yielding locking-arm normally held in contact with the disk and arranged to be disengaged by the direct contact of a coin therewith, substantially as described.

**No. 37,789. Method of Utilizing the Waste of Distilleries, Breweries, Starch and Glucose Works, etc.**  
(*Mode d'utiliser les rebuts des distilleries, brasseries, des ouvrages d'amidon et glucose.*)

Alexander Parks, Martinsburg, West Virginia, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The method herein described of reclaiming and preparing for use the waste of distilleries, etc., consisting in running off the surface liquid from the hot waste while the solid matter therein is settling, and then discharging this semi-liquid precipitated matter upon a bed of porous material, where it is permitted to drain, this porous bed serving to extract most of the remaining liquid from the mass, substantially as and for the purpose described. 2nd. The method herein described of reclaiming and preparing for use the waste of distilleries, etc., consisting in first separating the liquid and solid matter therein, then discharging the semi-liquid solid matter upon a layer of broken coal, coke, or other fuel, where it is permitted to drain, and finally mixing the drained waste with the porous body of fuel, whereby the waste is converted into fuel, substantially as described.

**No. 37,790. Air Moistening Apparatus.**  
(*Appareil pour humecter l'air.*)

William Virgil Wallace, Westfield, Massachusetts, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. In an air moistening apparatus, the combination with a valve case provided with inlet and outlet ports, of a turning plug fitted therein and provided with a groove partially surrounding its circumference in the plane of the ports and of length sufficient to establish communication between the ports, and a deflector plate secured in front of the outlet port in the path of the outflowing stream, substantially as and for the purpose set forth. 2nd. In an air moistening apparatus, the combination with a valve case provided with inlet and outlet ports, of a turning plug fitted therein and provided with a groove partially surrounding its circumference in the plane of the ports and tapering from the inlet toward the outlet port and of length sufficient to establish communication between the ports, and a deflector plate secured in front of the outlet port in the path of the outflowing stream, substantially as and for the purpose set forth. 3rd. In an air moistening apparatus, the combination of a valve casing communicating with a water supply pipe, and provided with a side opening G, a rotary valve in said casing, having a peripheral groove arranged to coincide with said opening and discharge a stream of water therethrough, and a wiper V, in yielding contact with the periphery of the valve, as set forth. 4th. In an air moistening apparatus, the combination with a valve case having an outlet port and an inlet port, of a revolvable valve fitting said case and provided with a groove in its periphery adapted to be brought into communication with said ports or moved across the outlet port by revolution of the valve, and a deflector arranged to be in line with a jet of water flowing from said groove, as and for the purposes described. 5th. In an air moistening apparatus, the combination with a valve case having an outlet port and an inlet port, of a revolvable valve provided with a groove in its periphery adapted to be brought into communication with said ports, said valve having an internal chamber and a port communicating therewith located adjacent to the outlet end of said groove, as and for the purpose described. 6th. In an air moistening apparatus, the combination with a valve case which has a groove on its inside circle adapted to communicate with the inlet and outlet ports, of a close fitting valve that can be revolved within said case and thus free any lodgment of dirt and admit it to be blown out by water forced through the groove, and a deflector, substantially as described.

**No. 37,791. Screw Propeller.**  
(*Helice de propulsion.*)

Charles Myers and Matthew Wells, both of Manchester, Lancaster, England, 14th November, 1891; 5 years.

*Claim.*—1st. A screw propeller having blades each in the form of a severed loop provided at the tip with a flat vertical surface which extends beyond the opening in the blade and at the center with two arms one placed in advance of the other upon the boss and helically disposed relatively to the axis of the central opening and angularly arranged relatively to the longitudinal axis of the boss to which the two arms are separately attached. 2nd. A screw propeller having

blades provided at the centre with two arms set angularly on the boss one in advance of the other which decrease in pitch towards the periphery provided with a flat vertical segmental connecting piece which connects the two arms together and forms a looped blade, substantially as described. 3rd. A flat looped screw propeller blade provided with a vertical propelling surface c, at the tip and two radial arms a, and b, extending therefrom to the center and increasing in pitch one attached to the boss in advance of the other, substantially as described. 4th. In a looped screw propeller blade, the combination with the boss B, of the two radial arms a, and b, of varying pitch set angularly thereon one in advance of the other provided at their outer end with a flat vertical segmental connecting piece c, which forms a flat screw blade with a central opening C, substantially as described.

**No. 37,792. Square.** (*Equerre.*)

James Harvey French and Henry John Smith, Defiance, Ohio, U. S. A., 14th November, 1891; 5 years.

*Claim.*—1st. The square 1, 2, having slots 3, each enlarged at one of its ends, in combination with a slotted bar 5, angular in cross section, screws 7 and nuts 8, substantially as described and for the purpose specified. 2nd. The combination, with the slotted square 1, 2, of the slotted bar 5, the set screws 7, having points formed on the ends of their shanks, and the nuts 8 engaging the threads of the screws, said bar 5, having a depending flange serving the double purpose of stiffening said bar and preventing the points of the screws from scratching when the same are used as set screws, substantially as described.

**No. 37,793. Combined Sash Holder and Tightener.** (*Arrête-croisée.*)

The Richmond Sash Holder Company, (assignees of Algernon L. Wilkinson), all of Richmond, Virginia, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The combination with a jamb and the fixed guide strip thereon, of a sliding sash having a longitudinal recess formed in one of its angles or corners, the face or plane of said recess being oblique to the angle formed by the edges or faces of the sash, a friction plate located in the recess of the sash and connected thereto, and a single leaf spring arranged longitudinally between the sash and friction plate, within the recess of the sash, to force both of the right angled exposed faces of the friction plate beyond the corresponding faces of the sash and directly in contact with the jamb and the guide strip, substantially as and for the purpose described. 2nd. The combination of a sash having in the corner of one of its stiles a recess whose plane or face is oblique to the angle formed by the exposed faces of the stile, a friction plate loosely connected to the sash and capable of a limited play thereon, both edgewise and laterally of said sash, and a single leaf spring interposed longitudinally between the sash and the friction plate, substantially as described, for the purpose set forth. 3rd. The combination of a sash having longitudinal recesses at suitable intervals in an angle or corner of the stile thereof, a slotted laterally movable friction strip loosely connected by suitable devices to the sash, within each recess thereof, and held from endwise movement in said recess, and a spring interposed between the sash and each friction strip to normally force said friction plate away from the sash, so that its right angled exposed faces extend beyond corresponding sides of the sash, substantially as and for the purpose described. 4th. The combination of a sash having a recess in one of its angles or corners, a friction plate fitted in said recess and having transverse slots which are formed in parts thereof that lie in rear of or out of line with the exposed right angled faces of the plate, a spring interposed between the sash and friction plate, and fixed screws which pass through the transverse slots of the friction plate whereby the heads of the screws lie in rear of the exposed faces of the friction plate and are prevented from coming in contact with the jamb, substantially as and for the purpose described. 5th. The combination of a sash having at one of its angles or corners a longitudinal recess whose plane is oblique to the angle formed by the exposed faces of the sash, a friction plate fitted in said recess and capable of play both edgewise of itself and laterally of the sash, a single leaf spring interposed between the plate and sash, and adjustable devices fixed to the sash and connected to the friction plate whereby the friction plate can be positively forced toward or from the sash to vary the tension of the spring, and at the same time is capable of the necessary play, substantially as described. 6th. The combination, with a recessed sash, of a laterally movable friction plate carried by the sash at one angle or corner of the stile thereof and having the ribs on its rear face, and a spring interposed between said friction plate and sash and having its face ends fitted between the ribs on the plate, substantially as and for the purpose described.

**No. 37,794. Ball Cock.** (*Flotteur pour robinets.*)

Thomas McAvity & Sons, (assignees of William McShane), all of Saint John, New Brunswick, Canada, 14th November, 1891; 5 years.

*Claim.*—A ball cock having a tubular body A, straight throughout and provided with lugs K, K, and terminating in a valve chamber E, provided with a discharge orifice J, at the side, a plug valve H, filling said chamber and closing an inlet throat F, and having contact with a ball lever provided with wings N, P, said lever pintled between the lugs K, K, one of said wings engaging the plug valve and the other limiting the drop of the lever by contact against the outside of the cock, said lever being reversible, as set forth.

**No. 37,795. Cash Register.**

(*Registre de monnaie.*)

Almy Le Grand Peirce, Grand Rapids, Michigan, and Charles Edward King, Cincinnati, Ohio, both in U. S. A., 14th November, 1891; 5 years.

*Claim.*—1st. The combination of the push-rod F and lever G, hav-



ing arms G<sup>1</sup>, G<sup>2</sup>, the arm G<sup>1</sup> having pawl G<sup>3</sup>, and tripping bar J and spring J<sup>2</sup> for retracting it, the pawl G<sup>3</sup> striking the tripping bar as the lever G is moved by rod F, the arm G<sup>2</sup> carrying the tablet I, substantially as and for the purposes specified. 2nd. The combination of the push-rod F and lever G, having arms G<sup>1</sup>, G<sup>2</sup>, the arm G<sup>1</sup> having pawl G<sup>3</sup>, and tripping bar J and spring J<sup>2</sup> for retracting it, the pawl G<sup>3</sup> striking the tripping bar as the lever G is moved by rod F, the arm G<sup>2</sup> carrying the tablet I, the tripping bar J carrying the ball hommer Z, and the bell Z, substantially as and for the purposes specified. 3rd. In combination with a paper supply roller, and the winding roller N<sup>2</sup>, and floor or platen K, the ink ribbon stretched over the paper, and a series of type, each carried by a resilient lever, and the push-rods each carrying a projection R, which bears on its adjacent said resilient lever, and depresses the latter as said rod is pushed toward the rear of the machine, substantially as and for the purposes specified. 4th. In combination with a paper supply roller, and the winding roller N<sup>2</sup>, and floor or platen K, the ink ribbon stretched over the paper, and a series of type, each carried by a resilient lever, and the push-rods carrying a pawl R, which depresses its adjacent resilient lever as the rod F is pushed toward the rear of the machine, substantially as and for the purposes specified. 5th. In combination with a paper supply roller, and the winding roller N<sup>2</sup>, and floor or platen K, the ink ribbon stretched over the paper, and a series of type, each carried by a resilient lever, and the push-rods each carrying a pawl R, which depresses its adjacent resilient lever as the rod F is pushed toward the rear of the machine, and ratchet wheel turning shaft N<sup>4</sup>, and lever E having tongue E<sup>2</sup>, cash drawer, and spring for opening it, the drawer when closed engaging said tongue, the lever carrying pawl N<sup>6</sup> engaging the said ratchet wheel, thus compelling the paper each time the drawer is opened to be moved forward the distance of one of the teeth of ratchet wheel N<sup>6</sup>, substantially as and for the purposes specified. 6th. In combination with a paper supply roller, and the winding roller N<sup>2</sup>, and floor or platen K, the ink ribbon stretched over the paper, and a series of type, each carried by a resilient lever, and the push-rods each carrying a pawl R, which depresses its adjacent resilient lever as the rod F is pushed toward the rear of the machine, and ratchet wheel turning shaft N<sup>4</sup>, and lever E having tongue E<sup>2</sup>, cash drawer, and spring for opening it, the drawer having opening receiving the tongue E<sup>2</sup>, and the lever E provided with pawl N<sup>6</sup>, and automatically drawn toward the drawer, substantially as and for the purposes specified. 7th. The push-rod F, and the ink ribbon and paper, and type substantially as described, and the inclined spring lever or arm Q<sup>2</sup>, the push-rod carrying a projection substantially as R, for depressing the type as the push-rod is advanced, and register wheels, and the push-rod having the spring pawl or arm F<sup>4</sup>, engaging the teeth of a register wheel as the push-rod is moved toward the rear of the machine, and partially rotating said wheel, substantially as and for the purposes specified. 8th. The push-rod F and the ink ribbon and paper, and type substantially as described, and the inclined spring lever or arm Q<sup>2</sup>, the push-rod carrying a projection substantially as R, for depressing the type as the push-rod is advanced, and register wheels, and the push-rod having the spring pawl or arm F<sup>4</sup>, engaging the teeth of a register wheel as the push-rod is moved toward the rear of the machine, and partially rotating said wheel, and the angle lever G<sup>1</sup>, G<sup>2</sup>, and the tablet operated by the latter, the push-rod F moving the said lever G<sup>1</sup>, G<sup>2</sup>, to operate the tablet, substantially as and for the purposes specified. 9th. In a cash register, the register wheel as L, and pawl L<sup>3</sup>, and wheels M and pawl M<sup>3</sup>, and elevating rod L<sup>2</sup>, the wheels having the studs L<sup>2</sup>, and pawls L<sup>3</sup>, and the lever L<sup>4</sup>, and its pawl L<sup>5</sup> thereof, and ratchet wheel L<sup>10</sup> fixed to a wheel L, and engaged by said pawl L<sup>5</sup>, substantially as and for the purposes specified.

**No. 37,796. Composition for Removing Scales from Steam Boilers and for Preventing their Formation.** (*Composition pour l'enlèvement et la prévention des incrustations dans les chaudières.*)

William Blackburn, Eber Ashbel Gurley, and John Ezra Rayl, all three of Marion, and Charles Henry Ness and Walter Shull, both of Galion, all in Ohio, U.S.A., 14th November, 1891; 5 years.

*Claim.*—The herein described composition of matter consisting of hydro-carbon oil, starch, and rice, in approximately the proportions specified.

**No. 37,797. Skate.** (*Patin.*)

Michael Weber, Zurich, and George Hofmann Tabler, Oerlikon, both in Switzerland, 14th November, 1891; 5 years.

*Claim.*—1st. In a skate, the combination, with a sole-plate having downwardly-projecting slotted lugs, of pins in said lugs, a runner provided with notches adapted to receive the pins in the lugs when the upper part of the runner is placed into said lugs, and of a pivoted latch on the sole-plate for locking the runner in the slotted lugs of the sole-plate, substantially as set forth. 2nd. In a skate, the combination, with a sole-plate having lugs, a runner, parts of which are adapted to pass into the lugs in the sole-plate, and a latch pivoted on the under side of the sole-plate and adapted to engage a part of the runner in one of said lugs of the sole-plate, substantially as set forth. 3rd. In a skate, the combination, with a sole-plate having lugs, a runner having parts adapted to pass into the lugs of the sole-plate, and a latch pivoted in the under side of the sole-plate and projecting through said sole-plate, which latch serves for locking said runner in the lugs of the sole-plate, substantially as set forth. 4th. In a skate, the combination, with a sole-plate having lugs, a runner having parts adapted to pass into the lugs of the sole-plate, a latch pivoted on the under side of the sole-plate and adapted to engage a part of the runner in one of the lugs of the sole-plate, which latch is adjustable toward and from one of said lugs, substantially as set

forth. 5th. In a skate, the combination, with a sole-plate having lugs, a runner having parts adapted to pass into the lugs of the sole-plate, a pin projecting from the under side of the sole-plate and adjustable toward and from one of the lugs, and a locking-lever pivoted to said pin and passing through an opening in the sole-plate, and having a plate on the end projecting through the sole-plate, substantially as set forth. 6th. In a skate, the combination, with a sole-plate provided with heel-caps, of a bar adapted to slide on the longitudinal axis of the sole-plate, and having one surface serrated, a heel-clamp provided with a bottom-wing having its under side serrated, a screw engaging said sliding serrated bar and the serrated wing of the heel-clamp, for the purpose of locking the two parts together after they have been adjusted, and a locking-lever engaging said sliding-bar, substantially as set forth. 7th. In a skate, the combination, with a sole-plate of sliding clamps provided with upwardly-projecting lugs for clamping the sole-heel-caps, a lever for operating the sole-clamps, a bar guided to slide longitudinally on the sole-plate and pivotally connected with said lever, a heel-clamp guided in a slot of the sole-plate, and a screw for locking the heel-clamp on the sliding-bar, substantially as set forth. 8th. In a skate, the combination, with a sole-plate, of sole-clamps mounted to slide on the sole-plate and provided with slots, pins passed through said slots in the clamps into the sole-plate, which pins have elongated heads of such length that they can extend across the slots in the sole-clamp, and of such width that they can pass through said slots when parallel therewith, substantially as set forth.

**No. 37,798. Combination Tool.**

(*Outil à combinaison.*)

Christopher Columbus Reynolds, Henry William Hooton and Matilda Matsey Mercv Bu-bv, all of Salt Lake City, Utah, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. In a combination tool, the combination of the straight lever bar, having a section provided with a series of adjustable holes, and having a sharpened chisel point adapted to cut into the bolt head, the bifurcated hooked bar, the pin for connecting said bar to the straight lever bar, all combined to operate as set forth. 2nd. In a combination tool, the combination of the straight lever bar having the handle A, the flattened section A<sup>1</sup>, provided with a series of holes a, the sharpened chisel point A<sup>2</sup> of hardened steel, the hooked bar B having hooked end B<sup>1</sup> extending beyond the end of the straight lever bar, said hooked bar being bifurcated to enclose the flat section A<sup>1</sup> of the straight lever bar, the pin for connecting the bifurcated hooked bar to the lever bar, said device being adapted especially for use with the countersunk heads of bolts, as specified.

**No. 37,799. Saw Teeth.** (*Dent de scie.*)

American Saw Company, assignees of William Edward Brooke, all of Trenton, New Jersey, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The combination with the saw-plate having a recess and a tongued shoulder at the outer end of said recess, and at an angle thereto, of a saw-tooth having a grooved angular shoulder bearing against the aforesaid tongued shoulder at the outer end of the recess, and the locking plate having a tongued lug at its upper end adapted to engage a suitable groove on the front edge of the tooth, there being a recess in the locking plate, into which the foot of the tooth enters loosely without touching, substantially as described. 2nd. The combination with the saw-plate A, having recess a, with a V-tongue, and an angular shoulder a<sup>1</sup>, with the right-angled tongue, of the tooth B, having a grooved angular shoulder b<sup>2</sup>, which engages the tongued shoulder a<sup>1</sup>, and having the plain-faced foot D and the curved recess E, with the right-angled groove, and the locking plate C, having the rearwardly curved upper end provided with a right-angled lug that enters the grooved recess on the front edge of the tooth, and having a plain-faced recess within which the plain-faced foot on the tooth loosely lies without touching, substantially as described. 3rd. The combination with the saw-plate A, having recess a, and angular shoulder a<sup>1</sup> having right-angled tongue a<sup>2</sup>, the tooth B, having an angular shoulder b<sup>2</sup>, provided with the right-angled groove b<sup>3</sup>, and a right-angled front groove e, and the locking plate having lugs f at its upper end that enter the groove e, substantially as described. 4th. The combination of the saw-plate A, having recess a, and provided with the V-shaped tongue a<sup>2</sup>, and the shoulder a<sup>1</sup>, having tongue a<sup>2</sup>, the tooth B, having the convex rear edge provided with groove b, and shoulder b<sup>2</sup>, having groove b<sup>3</sup>, said tooth having plain-faced foot D and front recess E, grooved at e, and the locking plate C having the lower edge grooved at c, and having the rearwardly-curved upper end F, formed with l, g, f, and likewise the recess d, all the parts being combined, substantially as described.

**No. 37,800. Door Hanger.** (*Coulisse de porte.*)

Edward Y. Moore, Milwaukee, Wisconsin, U.S.A., 16th November, 1891; 5 years.

*Claim.*—1st. In a door-hanger, the combination, with a frame consisting of recurved legs and opposite parallel rider-bars secured to the legs of an independent sheet-metal cover, secured in the frame over the wheel, the combination, with a frame having recurved legs, and wheel-bearing bars secured to the legs opposite to and parallel with each other, and projecting inwardly beyond the inner surfaces of the opposing parts of the legs, of a sheet-metal cover resting at its edges on the bars and bearing at its ends on its outer surface against the inner recurved portions of the legs, substantially as described. 3rd. In a door-hanger, the combination, with a frame having recurved legs and wheel-bearing bars secured to the legs opposite each other, of a curved sheet-metal cover resting at its edges on the bars and bearing at its ends on its outer surface against the inner surfaces of the recurved portions of the legs, and bosses raised on the outer surface of the cover near the legs of the frame to prevent the movement of the cover endwise, substantially as described.

**No. 37,801. Ore Crusher.***(Machine à broyer le minerais.)*

William Lorenzo Morris, Cleveland, Ohio, U.S.A., 16th November, 1891; 5 years.

*Claim.*—1st. In an ore crusher, the combination of a stationary jaw carrying a movable die, the crushing face of which is formed in cross section upon the arc of a circle terminating at the sides in diverging and substantially straight lines, with an oscillating jaw carrying a removable die, the crushing face of which is convex in cross section, substantially as and for the purposes described. 2nd. In an ore crusher, a stationary jaw carrying a removable die, the crushing face of which is formed in cross section upon the arc of a circle terminating at the sides in diverging and substantially straight lines, in combination with an oscillating jaw carrying a removable die, the crushing face of which is convex in cross section, the lower or convex die being narrower than the upper die, whereby lateral side discharges are formed at the sides of the crusher, substantially in the manner and for the purposes described. 3rd. The combination of the base formed integrally with the rigid jaw, a concave sectional crushing die adapted to be retained in said jaw, an oscillating jaw provided with an elongated heel through which said jaw is fulcrumed upon a fulcrum shaft, a convex crushing die removably secured in said jaw, the free end of the latter being adapted to be oscillated by means of an eccentric shaft and sleeve, substantially as and for the purposes specified. 4th. In an ore crusher, the combination of the base A, formed integrally with the jaw B, a crushing die C, removably secured in said jaw B, an oscillating jaw E, the elongated heel F of which is fulcrumed upon the fulcrum shaft G, supported in eye-bolts H, the crushing die P, removably secured in the jaw E, said jaw being adapted to be oscillated upon its fulcrum, substantially as and for the purposes set forth.

**No. 37,802. Car Coupling. (Attelage de chars.)**

Henry C. Bugg, Birmingham, Alabama, and Edward B. Loomis, Memphis, Tennessee, both in U. S. A., 16th November, 1891; 5 years.

*Claim.*—1st. In a car coupling, the combination, with a draw head adapted to receive a link, of a crank rod extending transversely beneath the same, a bent arm extending forward from the crank rod, a plate secured to the free end of the arm and provided with a concave upper edge, and an inclined lip extending forwardly and downwardly from the plate, substantially as described. 2nd. In a car coupling, the combination, with the draw head and the coupling pin, of a crank rod mounted transversely on the car and provided with the forwardly projecting arm 15, the outer end of which is secured to the pin, and a spring catch secured to the car adjacent to and in the rearward path of said arm, so as to engage the arm when raised, substantially as described.

**No. 37,803. Hammock Support.***(Châssis de hamac.)*

Alexander Miller, Toronto, Ontario, Canada, 17th November, 1891; 5 years.

*Claim.*—1st. A covered frame pivoted on a stationary horse and provided with means to support a hammock, substantially as and for the purpose specified. 2nd. A frame A, supporting the hammock H, and provided with a centre cross-bar B, to which V-shaped blocks C are fixed in combination with the blocks D, fixed to the back E, of a horse, substantially as and for the purpose specified. 3rd. A frame A, supporting the hammock H, and provided with blocks C, designed to engage with blocks D, which are fixed to the back of a horse, in combination with means for supporting the party entering and removing from the hammock, substantially as and for the purpose specified.

**No. 37,804. Saw Set. (Tourne à gauche.)**

Francis James Drake, Belleville, Ontario, Canada, 18th November, 1891; 5 years.

*Claim.*—1st. The body of the machine A in combination with the holes a, the lugs b, cones d, and boss f, with wings f', substantially as described and for the purpose hereinbefore set forth. 2nd. The handle C, substantially as described and for the purpose hereinbefore set forth. 3rd. The combination of the handle c with the cone e, and the lug g, substantially as described and for the purpose hereinbefore set forth. 4th. The dog, or trip E, substantially as described and for the purpose hereinbefore set forth. 5th. The combination of the handle c and the dog E, substantially as described and for the purpose hereinbefore set forth. 6th. The plunger B, substantially as described and for the purpose hereinbefore set forth. 7th. The combination of the plunger B with the spiral spring L, substantially as described and for the purpose hereinbefore set forth. 8th. The combination of the plunger B and the spiral spring L with the adjusting nut H, substantially as described and for the purpose hereinbefore set forth. 9th. The combination of the spiral spring K with the handle c, and body A, substantially as described and for the purpose hereinbefore set forth.

**No. 37,805. Stereotype Plate and Base with Locking Device. (Plaques stéréotypes et bases avec appareil de fermeture.)**

Benjamin Franklin Harris, Jr., Champaign, Illinois, U. S. A., 18th November, 1891; 5 years.

*Claim.*—1st. The combination of a stereotype base, a plate supported thereon, a tongue and groove connection intermediate of the base and plate, a longitudinal passage formed in opposing faces of the tongue and groove, and a locking pin in said passage, substantially as shown and described, for the purpose specified. 2nd. The

combination of a base plate, a stereotype plate supported on the base, one of said plates provided with a longitudinal groove of substantially the same width at all points and the other plates provided with a longitudinal rib adapted to fit within the groove in the other plate, and a key substantially such as described, for locking the plates tightly together, as and for the purpose described. 3rd. The combination of a base plate, a stereotype plate supported on the base one of said plates provided with a longitudinal groove, and the other plate provided with a rib adapted to fit in said groove, the groove being formed at right angles to the face of the plate, and a key, substantially as described, for locking the plates tightly together, as and for the purpose set forth.

**No. 37,806. Fastening for Shoes, Corsets, Gloves, etc. (Agrafe pour chaussures, gants, corsets, etc.)**

Benny Bernstein, New York, State of New York, U.S.A., 18th November, 1891; 5 years.

*Claim.*—1st. In a fastening of the nature described, the combination, with the keeper provided with a diametric slot the bottom of which is larger than the top, of a fixed catch bar having a pivoted arm at right angles to the bar, said bar and arm adapted to enter the slot of the keeper and the arm automatically engage said keeper, substantially as specified. 2nd. In a fastening of the nature described, the combination with the keeper provided with a diametric slot the bottom of which is larger than the top, of a fixed catch bar provided with a pivoted arm at right angles to the bar having a ball weight, said bar and arm adapted to enter the slot of the keeper and the arm automatically engage said keeper, substantially as specified. 3rd. In a fastening of the nature described, the combination, with the keeper provided with a diametric slot and at one end with a shoulder, of a fixed catch bar having a pivoted arm at right angles to the bar carrying ball weight, said bar and arm adapted to enter the slot of the keeper and the arm automatically engage the shoulder of said keeper, for the purposes specified. 4th. In a fastening of the nature described, the combination with the keeper provided with a diametric slot and a shoulder, of a fixed catch bar provided with a sleeve having secured to it an arm carrying a weight, said arm adapted to turn and engage the shoulder on the keeper, for the purpose set forth. 5th. In a fastening of the nature described, the combination, with the keeper provided with a diametric slot the bottom of which is larger than the top, of a fixed catch bar having a pivoted arm at right angles to the bar, said bar and arm adapted to enter the slot of the keeper and the arm automatically engage the keeper, and a spring for reacting the parts, substantially as specified.

**No. 37,807. Paint. (Peinture.)**

Robert Horsey, Port Hope, Ontario, Canada, 18th November, 1891; 5 years.

*Claim.*—As an improved paint, a composition composed of white lead, whitening, raw linseed oil, red lead and black lead, mixed together substantially in the proportions hereinbefore set forth.

**No. 37,808. Flushing Apparatus and Stop Cock. (Cuvette de latrine et robinet de retenue.)**

Felix Louis Decarie, Montreal, Quebec, Canada, 18th November, 1891; 5 years.

*Claim.*—1st. The combination in a flush apparatus, of the valve A, constructed as described, with a pipe and tank, said valve A, being adapted to be operated as described substantially as set forth. 2nd. The combination in a flush apparatus, of the valve A, constructed as described with a pipe and tank, said valve A, being adapted to be operated by the seat of the closet, with said seat, the whole substantially as described for the purposes set forth. 3rd. The combination in the valve A, of the shell a, having diaphragm provided with ports e, and port g, and having connections b, c, and f, plug l, valve o, and spindle m, the whole substantially as described. 4th. The combination in a flush valve A, of the shell a, having diaphragm provided with ports e, and port g, also having connections b, c, and f, valve o, having spindle m, provided with collar n, and plug l, having a countersink, the whole substantially as described.

**No. 37,809. Nut Lock. (Arrête-écrou.)**

Alonzo C. Deal, Glenwood, West Virginia, U.S.A., 18th November, 1891; 5 years.

*Claim.*—The combination, with the bolt and nut, each provided with an aligning dove-tailed recess across its end and top, respectively, said nut being also provided with opposite side recesses, of a locking bar having dove-tailed sides mounted in the dove-tailed recesses of the bolt and nut and provided with forwardly disposed perforated studs, a U-shaped yoke having its terminals inserted in the recesses in the sides of the nut and having perforations for the reception of the studs, and locking pins inserted in the perforations of the studs, substantially as specified.

**No. 37,810. Combined Automatic Sash Lift and Lock. (Arrête-croisée.)**

Charles Knapp, St. Louis, Missouri, U.S.A., 18th November, 1891; 5 years.

*Claim.*—1st. A "combined automatic sash lift and lock" having a horizontally reciprocating locking rod 27, means for reciprocating the same, and a bar 7, provided with shoulders 8, and shoulders 9, substantially as set forth. 2nd. A "combined automatic sash lift and lock" having a plate 1, a finger piece 13, cast integrally there-

with a thumb piece 16, pivotally mounted in said plate, a right angular lever 19, pivotally mounted or secured also to said plate and adapted to be actuated by said thumb piece, a reciprocating rod 27, pivotally mounted on the vertical arm 25, of said lever, and a spiral spring 23, secured to the horizontal arm 22, thereof and the plate 11, substantially as set forth. 3rd. A "combined automatic sash lift and lock" having a plate 1, a finger piece 13, cast integrally therewith, a thumb piece 16, pivotally mounted in said plate, a right angular lever 19, pivotally mounted or secured also to said plate and adapted to be actuated by said thumb piece, a reciprocating rod 27, pivotally mounted on the vertical arm 25, of said lever, a spiral spring 23, secured to the horizontal arm 22, thereof and the plate 11, and a bar 7, provided with a shoulder 8, and a shoulder 9, substantially as set forth. 5th. A "combined automatic sash lift and lock" having a plate 11, a finger piece 13, cast integrally therewith, and on the front face thereof, an elongated perforation 15, formed in said plate, lugs 14, cast integrally with the rear surface of said plate a thumb piece 16, provided with a decreased portion 17, and an arm 18, pivotally mounted between said lugs 14, a lug 20, cast integrally with the rear surface of said plate, a right angular lever 19 provided with arms 22 and 25, pivotally mounted on said lug 20, a spiral spring 23, secured to said arm 22, and lug 24, formed on the rear surface of said plate, a reciprocating locking rod 27, provided with a stud 26, on which arm 25, of lever 19, is mounted, and a bar 7, provided with horizontal shoulders 8, and a shoulder 9, substantially as set forth.

### No. 37,811. Thrashing Machine.

(Machine à battre.)

Frank Frick Landis, Waynesborough, Pennsylvania, U.S.A., 18th November, 1891; 5 years.

*Claim.*—1st. The combination with the concave provided with toothed bars and having apertures in the front ends of its sides, of a transverse shaft provided with cams adapted to be turned to raise or lower the front of the concave, a similar transverse shaft provided with cams and operatively connected to the rear of the concave, and a stop for preventing the concave from being moved longitudinally, substantially as set forth. 2nd. The combination, with a revoluble toothed cylinder, of a concave provided with toothed bars and having apertures in the front ends of its sides, the revoluble cams working in the said apertures, the revoluble cams at the rear of the cylinder, the connecting rods pivotally connecting the rear ends of the said sides with the last said cams, and a stop for preventing the longitudinal motion of the concave and permitting it to be adjusted vertically, substantially as set forth. 3rd. The combination, with a vertically adjustable concave provided with rounded projections at its front end, of a round topped support secured to the end of the machine casing, and a perforated plate resting upon the said rounded surfaces, in front of the concave and provided with hook shaped lugs engaging with the said projections and adapted to adjust itself to the vertical adjustments of the concave, substantially as set forth. 4th. The combination, with a revoluble toothed cylinder, of a cylinder chamber provided with side plates having inwardly projecting curved flanges 9, and upwardly and outwardly flaring hopper throat plates 10, the bottom plate 7, provided with a ledge at its front end, the hopper provided with upwardly flaring sides joining onto the said throat plates, and an inclined bottom provided with a loose portion resting in the said ledge and adapted to be raised to close the feeding opening of the machine, substantially as set forth. 5th. The combination with a revoluble toothed cylinder, of the toothed concave below the front portion of the cylinder, the grain deflector secured in the upper part of the cylinder chamber behind the cylinder, a curved guide plate extending from the said grain deflector over the top of the cylinder and thence forward at a tangent, and the downwardly and rearwardly inclined dirt and wind deflector secured across the cylinder chamber in front of the end of the said guide plate, substantially as and for the purpose set forth. 6th. The combination, with a revoluble toothed cylinder, of a cylinder chamber provided with side plates, the curved flanges projecting inwardly over the front portion of the cylinder substantially at a right angle to the side plates, and the hopper throat plates projecting from the inner edges of the said flanges in front of the cylinder and flaring outwardly toward the hopper and also upwardly in a vertical direction, whereby the side portions of the material are compressed by the double convergence of the throat plates, and fed into the cylinder without obstruction, substantially as set forth. 7th. The combination, with a threshing cylinder, a concave, and a grain pan below the said parts, of a slatted screen arranged between the said threshing devices and the bottom of the grain pan, and consisting of a series of rearwardly diverging slats, the said slats being of such height and spaced at such distance apart that all the grain must strike against the substantially vertical sides of the slats and be thereby projected forward and prevented from rebounding upward and becoming entangled with the straw. 8th. The combination, with a grain pan, of a slatted screen secured above the bottom of the pan leaving open passages between the screen and the pan both at the bottom and at the sides, the slats in the said screen being arranged in a rearwardly diverging series and adapted to prevent the grain from rebounding upward and becoming entangled with the straw, substantially as set forth. 9th. The combination, with a revoluble picker for taking the straw from the threshing cylinder, of two revoluble beaters provided with intercurent plates for the straw from the picker to pass between, and a fork provided with rows of teeth and revolving at a higher speed than the beaters, a row of teeth being arranged to come behind and between each pair of opposed beater plates, whereby the straw may be loosened, and toothed driving wheels positively connecting the shafts of the said picker, beaters, and fork, substantially as set forth. 10th. The combination, with the two beaters, each provided with four equidistant plates intercurent with each other for straw to pass between, of the intercurent toothed wheels secured upon the beater shafts, a fork provided with two rows of teeth and mounted on a shaft behind the said beaters, and intermediate toothed wheels connected to one of the beater wheels and revolving the said fork at twice the speed of the said beaters, whereby the straw delivered from between the

beaters may be loosened by the fork, substantially as and for the purpose set forth. 11th. The combination, with a straw shaker consisting of longitudinal bars provided with ratchet teeth and a series of inclined cross slats supported between the said bars and arranged with a decreasing angularity of the longitudinal path of the material over the slats, of an operating device, such as a crank, for imparting a longitudinal reciprocating motion to all the slats and a tossing movement to those slats having the greatest inclination, the said tossing motion decreasing in extent proportional to the decreasing inclination of the slats in the series, substantially as set forth. 12th. The combination, with a straw shaker provided with a series of inclined cross slats arranged substantially radial to a point near one end of the shaker, of an operating device, such as a crank, operatively connected to that end of the shaker near the said point, for reciprocating the shaker longitudinally and also vertically in proportion to the inclination of said slats, substantially as set forth. 13th. The combination, with a straw shaker consisting of longitudinal bars provided with ratchet teeth and a series of inclined cross slats supported between the said bars, of a crank for imparting motion to one end of the shaker, pivoted supporting links near the other end of the shaker, and a gather-board forming a continuation of the said series of cross slats and situated at the extreme end of the shaker beyond the said links and having serrations arranged in a reverse direction to the said ratchet teeth to cause the grain falling upon it to be carried in the reverse direction from the straw above, substantially as set forth. 14th. The combination, with the first inclined straw shaker and the links pivotally supporting its front end, of the second inclined straw shaker arranged behind the first said shaker and the links pivotally supporting the rear end of the said second shaker, the revoluble cranks supporting and actuating the meeting ends of the two said shakers, the serrated gather-board under the second shaker, pivoted at the rear end of the supporting links of the said second shaker, and the links pivotally supporting the front end of the said gather-board, substantially as and for the purpose set forth. 15th. The combination, with a revoluble picker for taking the straw from the threshing cylinder, of a pair of revoluble beaters for the straw to pass through after being raised by the picker, a revoluble fork for loosening the straw behind the said beaters, a straw shaker provided with longitudinal toothed bars and cross slats between the bars and arranged behind and below the said fork, and means such as a crank for imparting a longitudinally reciprocating and tossing motion to the said shaker, whereby the grain and chaff may be shaken out of the straw, substantially as set forth. 16th. The combination, with a vibrating grain screen provided with a bottom surface consisting of a series of sections of imperforate material provided with cross grooves and a series of sections of inclined slats, the said sections being arranged alternately, of the longitudinal ratchet bars for causing the material to travel over the screen, and a blower for forcing a uniform blast upwardly between all the said slats of the screen, substantially as set forth. 17th. The combination, with a fan casing provided with inlet openings at each side, of a revoluble fan journaled inside the said casing and having the outer periphery of the ends of its blades projecting within the said inlet openings, whereby the formation of circular vortex currents at the ends of the fan is prevented and the volume and pressure of the blast are equalized all across the fan. 18th. The combination, with a fan casing provided with inlet openings at each side and inwardly projecting flanges encircling the said openings, of a fan journaled inside the said casing and having the outer periphery of the ends of its blades projecting within the inlet openings in close proximity to the flanges, substantially as and for the purpose set forth. 19th. The combination, with a fan casing provided with an inlet opening of a revoluble fan having the outer periphery of its blades projecting into the said opening to prevent the escape of air past the ends of the blades, substantially as set forth. 20th. The combination, with a blower, of a pivoted valve extending across the main air discharge passage and normally lying in line with its axis, a wind vane secured to the said valve and arranged crosswise of the said passage, and an adjustable controlling device, such as a weighted lever, for retarding the closing of the said valve by the blast, substantially as set forth. 21st. The combination, with a blower, provided with air discharge passages, and an adjustable deflecting board for distributing air between the said passages, of a pivoted valve extending across one of the said passages and normally lying in line with its axis, a wind vane secured to the said valve and arranged crosswise of the said passage, and an adjustable controlling device, such as a weighted lever, for retarding the closing of the said valve by the blast, substantially as set forth. 22nd. The combination, with a blower, of a valve pivoted in the main air discharge passage of the blower, a wind vane secured to the said valve and adapted to partially close it when the pressure of the blast is increased, an adjustable controlling device, such as a weighted lever, for retarding the closing of the valve by the blast, and a dash pot operatively connected with the valve for steadying its action, substantially as set forth. 23rd. The combination, with a grain plate provided with flutes, of a roll provided with spiral grooves and journaled behind the said flutes at the rear of the said plate, substantially as and for the purpose set forth. 24th. The combination, with a grain plate provided with flutes, of a roll journaled at the rear of the said plate and provided with spiral grooves and notches arranged out of line with each other on its periphery between the grooves, substantially as and for the purpose set forth. 25th. The combination, with a grain plate provided with flutes of a roll journaled at the rear of the said plate behind the said flutes and provided with right and left handed spiral grooves extending from the center to the opposite ends of the roll, substantially as and for the purpose set forth. 26th. The combination, with a grain plate and a revoluble grooved roll at the rear of the said plate, of an adjustable retaining plate pivoted to the front of the said grain plate, substantially as and for the purpose set forth. 27th. The combination, with a grain plate, of a toothed comb adjustably secured to the said plate, and a removable dividing bar supported below the points of the teeth of the said comb, substantially as and for the purpose set forth. 28th. The combination, with the side plates, of a grain plate secured to the side plates, the toothed comb secured to the said grain plate, and the removable dividing bar provided with wedge shaped end brackets adapted to be dropped into pockets in

the side plates, whereby the said bar may be supported below the teeth of the comb, substantially as set forth. 29th. The combination, with the upper and lower grooved cleaning rolls, of the side plates, a support for the front ends of the side plates to slide on, brackets for supporting the rear ends of the side plates, the grain plates secured to the said side plates in front of the cleaning rolls, the rods pivotally connected to the rear ends of the side plates, and the cross shaft provided with a handle and with levers pivoted to the said rods, whereby the distance between the grain plates and the rolls may be adjusted, substantially as set forth. 30th. The combination, with the reciprocating gather board provided with an opening across its lower end, of the perforated screen secured above the gather board and vibrating with it, the brackets secured to the gather board, and the tilting guide slat pivoted in the said brackets below the said opening, with one or the other of its edges bearing against the under side of the gather board and adapted to discharge the small seeds into the grain spout or to one side of it, substantially as set forth. 31st. The combination, with the tailings spout, of the shaking shoe situated at the rear of the tailings spout and provided with a serrated bottom, and a frame provided with a series of inclined slats and adapted to be slid on the said shoe over the said tailings spout, whereby coarse rubbish may be removed from the tailings, substantially as set forth. 32nd. The combination, with the longitudinally reciprocating gather board, of the grain spout and the tailings spout, both pivotally supported crosswise of the machine, the revolvable eccentrics and the eccentric rods connected to the said gather board, the shaking shoe behind the tailings spout, the rods secured to the eccentric rods and to the said shoe, the double bell crank lever pivoted between the two said spouts the rods connecting the respective spouts with the opposite arms of the bell crank lever, and the rod connecting the middle arm of the bell crank lever with one of the said eccentric rods, whereby all the said reciprocating parts may be operated by the said eccentrics, substantially as set forth. 33rd. The combination, with the brackets secured to the casing, of the longitudinally adjustable side plates for carrying the grain plates, said side plates having their rear ends pivotally supported on the said brackets, a transverse bar forming a support upon which the front ends of the said side plates may slide, the revolvable cams on one of the grain rolls, and the inclined guides supporting the said transverse bar and permitting it to be moved transversely to lower the said side plates onto the cams, substantially as set forth.

### No. 37,812. Pea Harvester. (*Moissonneuse.*)

Joseph H. Clement, Carlton, New York, U.S.A., 18th November 1891; 5 years.

*Claim.*—1st. In combination with the main frame A, wheels B, B', and independent shafts or axles C, C', the latter each having a beveled gear-wheel p, the upright shafts G, G, journaled in the main frame and provided each with a beveled gear q to engage the gears p, and a pusher J, secured to the lower end of each shaft G, the pushers being separated a distance from each other, all substantially as shown and described. 2nd. In combination with a main wheeled frame, two rotatable disks or pushers separated, as shown, and mounted upon the main wheeled frame, and means for rocking or tipping the main wheeled frame and the pushers carried thereby. 3rd. In combination with a wheeled frame having a shaft C and beveled gear p, an upright shaft G journaled therein, a pusher or disk at the lower end of the shaft, a universal joint at the upper end, a pinion g carried by the shaft and adapted to engage the gear p, means for imparting motion to the shaft, and a lever connected with the joint at the upper end of the shaft for raising and lowering the latter, and throwing the gears p, q, into and out of engagement with each other. 4th. In combination with a wheeled frame, an upright shaft G provided at its lower end with a disk or pusher, a scraper, a hand-lever, a universal joint connecting the lever with the shaft, and a rod connecting the scraper with the lever. 5th. In combination with the shaft G and its disk or pusher J, a scraper L, and a casing M, secured to the pusher around the lower end of the shaft, all arranged substantially as shown. 6th. In combination with a wheeled frame carrying the rotating pushers, a rock-shaft, a series of fingers carried thereby, and means for automatically and periodically raising the fingers. 7th. In combination with a wheeled frame, brackets N, N, provided with a series of bearings, shaft O, provided with fingers P and an arm Q, rod R, connected with rod Q, and provided with an adjustable collar a', having a roller b', and a cam S on the axle of the wheeled frame. 8th. In combination with a wheeled frame, the axle of which is provided with a cam S, brackets N, N, shaft O, provided with fingers P and arms Q, T, a spring W, a series of slats X, a rod R, provided with an arm or roller b', a rod or bar U, and a staple V, all arranged substantially as shown.

### No. 37,813. Compound for the Cure of Epilepsy and Kindred Diseases.

(*Composition medicinale pour la guérison de l'épilepsie et autres maladies semblables.*)

John Morrison McLeod, Goderich, Ontario, Canada, 18th November, 1891; 5 years.

*Claim.*—A compound consisting of an infusion of extract of gentian consisting of 36 pints of water to 12 oz. of gentian, reduced to 26 pints, 12 oz. of gum ammoniac, 4 lb. of bromide of potash, one pound of iodide of potash, one pound of bromide of soda, 4 pints of tincture of columba, 4 pints of tongalain, and 8 oz. of tincture of digitalis, or thereabouts, all mixed and worked, substantially in the manner set forth.

### No. 37,814. Machinery for the Manufacture of Matches. (*Machine pour la fabrication des allumettes.*)

Charles Robert Edward Bell, London, England, 18th November, 1891; 5 years.

*Claim.*—1st. An automatic machine for the manufacture of matches by a continuous process having in combination the following devices, namely, an intermittent feed which presents the edge of the veneers towards a rotary drum or its equivalent, a knife or knives for cutting the veneers in the direction of their grain, grippers for holding the splints in such intermittently rotating drum, a casing or chamber inclosing a portion of the drum, and through which the splints pass, a paraffine heating-tank for paraffining the splints, a rotating drum coated with striking composition, a cooling and drying chamber inclosing a portion of the drum, and a comb for delivering the finished articles, the combination being and operating substantially as described. 2nd. In a match making machine, an intermittently rotating drum or its equivalent carrying a system of grippers adapted for receiving, gripping and holding match splints or tapers, the said grippers having a bell-shaped or funnel mouth, and a set of spring gripping tongues, substantially as and for the purposes set forth. 3rd. In a match making machine, the combination with the intermittently-rotating drum or its equivalent, of feed rollers bearing on the opposite edges of the veneer, and a knife or knives whose cutting edge or edges are substantially in line with the radius of the drum for severing the splints from the veneer, and plungers for pushing the said splints or tapers into the grippers in the drum, substantially as shown and described. 4th. In a match making machine, the combination with the said intermittently-rotating drum or its equivalent, and with intermittently-operated rollers serving to bear on the edges of the veneer to feed the same, and with a knife or knives reciprocating in right lines and cutting the veneers in the direction of the grain of the wood into match splints, and a plunger for pushing the said splints into clips in the said drum, of devices substantially as described for heating, paraffining, cooling, tipping and drying the matches. 5th. In match making machinery, the combination with the drum or its equivalent, and with the grippers h, h', having the bell-mouth and split shank of an ejecting comb actuated by rods, and levers within the drum and serving automatically to push the finished matches from the grippers in the drum into suitable receptacles, substantially as described. 6th. In an automatic machine for the continuous manufacture of matches from a strip or sheet, the combination of a slotted guide with intermittently-actuated feed rollers bearing against and gripping the edges of the strip or sheet, and whereby said strips are vertically introduced into measuring grooves, substantially as and for the purposes described. 7th. In an automatic machine for the continuous manufacture of matches, the combination of an intermittent feed and a slotted guide as described, with a horizontal plate provided with grooves into which the ends of the strips of veneer or the like are introduced by the act of feeding the depth of the grooves corresponding to the predetermined thickness of the match. 8th. An automatic machine for the continuous manufacture of matches having in combination an intermittent vertical feed, slotted guides, grooved plate, and horizontally reciprocating knives, as set forth, and whereby the portion of the veneers advanced into the recesses of the grooved plate is held for severing and is cut off of the predetermined thickness, all substantially as set forth.

### No. 37,815. Combination Tool and Holder.

(*Outil & combinaison.*)

Alem J. Green and William R. Elliott, both of Essex Centre, Ontario, Canada, assignees of Fred. Buck and Otto Konigslow, both of Cleveland, Ohio, U.S.A., 18th November, 1891; 5 years.

*Claim.*—1st. In a tool holder, a body formed with a socket in its outer end, one or more removable tools jointly engaged in the end of said body, and means for holding said tools in engagement with said body and for permitting their free disengagement therefrom, substantially as described. 2nd. An improved tool holder consisting of a body provided with a socket and radial slots in its outer end, a movable sleeve or collar embracing said body, and removable tools engaged in the outer end of said body and held in place by said sleeve or collar, substantially as described. 3rd. An improved tool holder comprising a radially slotted overhanging head, and a spring pressed slotted sleeve or collar arranged to be moved toward and away from the head, substantially as described. 4th. In a tool holder, the combination of a body formed with a socket in its outer end, tools pivoted in the end of said body, a sleeve or collar embracing said body and engaging said tools with its outer edge, and provided with a cross pin projecting across the socket in said body, and a spring within said socket bearing against said cross pin, substantially as described. 5th. In a tool holder, the combination of a body formed with a radially slotted overhanging head, a sleeve or collar sliding upon said body against said head, and having registering slots in its end, and tools pivoted with their heads in the slots of said body head, and formed with oppositely arranged notches in their heads to be engaged by the slots in said sleeve, substantially as described.

### No. 37,816. Cork Extractor. (*Tire bouchon.*)

Melvin E. Donally, assignee of Bernard Tormey, both of New York, State of New York, U.S.A., 18th November, 1891; 5 years.

*Claim.*—1st. An improved cork extractor, comprising a flat strip of suitable metal provided with claws arranged some distance from its lower end, and a handle secured to the upper end of the strip, as and for the purpose specified. 2nd. An improved cork extractor, comprising a flat strip of suitable material provided with two claws one above the other, the lower one being a distance from the lower end of the strip to form a bearing below the lower claw for the cork, and a handle secured to the upper end of the strip, substantially as shown and described. 3rd. As an improved article of manufacture, a cork extractor consisting of a flat metal strip, 10, provided with the claws 13 and 14, one above the other, the lower one, 13, being a distance from the end to form a bearing, 19, for the cork, and the handle, 12, having one end tapering from its center outward and provided with a head, 15, at its other end, as and for the purpose specified.

### No. 37,817. Adjusting and Locking Device for Shutters. (*Fermeture de contre-vent.*)

John P. Hunt and Edwin N. Hunt, both of London, Ontario, Canada, 18th November, 1891; 5 years.

*Claim.*—1st. A helical curved flange, H, the curves of which flange lie in one plane, and have a gradually decreasing diameter, in combination with a toothed wheel, T, and means for supporting and operating the same, substantially as shown and described, and for the purpose specified. 2nd. A helical curved flange, H, the curves of which flange lie in one plane, and have a gradually decreasing diameter, the shaft, E, which operates said flange, and to which the flange is secured, and means for supporting said shaft, in combination with a toothed wheel, T, post, D, stud, P, bracket, C, and arm, A, bed-plates, B, B', and the shutter, S, substantially as shown and described, and for the purpose specified.

### No. 37,818. Self-Oiling Axle Bearing.

(*Coussinet d'essieu à graissage continu.*)

James Shaw Patten, Baltimore, Maryland, U.S.A., 19th November, 1891; 5 years.

*Claim.*—1st. A self-oiling bearing, substantially as described, consisting of the axle having a spindle portion provided with a longitudinal groove communicating with an oil-reservoir, a rod sliding in said groove, a spring for actuating said rod in one direction, and the axle-box provided with a cam by which to force the rod in the opposite direction, all substantially as and for the purposes set forth. 2nd. A self-oiling bearing, substantially as described, comprising, in combination, the axle having an oil-reservoir and a spindle portion provided with a longitudinal groove communicating with the said oil-reservoir, a rod sliding in the said groove, a spring adapted to move said rod in one direction, such spring being located in the oil-reservoir, and means by which to move the rod in the opposite direction, all substantially as and for the purposes set forth. 3rd. In a self-oiling bearing, substantially as described, the combination of the axle having an oil-reservoir and a spindle portion having a groove communicating with said reservoir, the rod sliding in said groove and extending at one end into the said reservoir, and the spring in said reservoir fitted at one end on the said end of the slide rod substantially as set forth. 4th. In a self-oiling bearing, the combination, with the spindle portion having a longitudinal groove and the rod sliding in said groove, of the box fitted on said spindle portion and having a cam surface arranged to engage the outer end of the sliding rod, all substantially as and for the purposes set forth. 5th. In a self-oiling bearing, the combination with the spindle portion having a longitudinal groove, the rod sliding in said groove, and the box fitted on said spindle portion and having a pin *g*, of the cam-ring fitted in said box and having a slot *Q* to receive the pin *g*, and a cam-surface to engage the outer end of the slide rod, all substantially as and for the purposes set forth. 6th. In a self-oiling bearing, the combination of the axle having an oil-reservoir and provided at the opposite sides thereof with undercut guides and having the spindle portion provided with a longitudinal groove, the cover-plate fitted to the undercut guides at the opposite sides of the oil-reservoir, the rod sliding in the groove of the spindle, and means whereby to operate said slide rod, all substantially as set forth. 7th. In a self-oiling bearing, the combination of the axle having an oil cavity or reservoir, the cover fitted to said reservoir and having an opening *g*, and the spring swing plate arranged to be adjusted to cover said opening *g*, and having a vent arranged to register with the opening *g*, substantially as set forth. 8th. In a self-oiling bearing, substantially as described, the combination of the axle or shaft, the box or bearing, one of such parts being provided with an oil cavity or reservoir and a groove communicating therewith, a rod supported to slide in the said groove, a spring by which the said rod is actuated in one direction, and a cam by which the said rod is moved in the opposite direction, all substantially as and for the purposes set forth. 9th. In an apparatus substantially as described, the combination of the slide rod having an opening *k*<sup>1</sup>, and the spring having a tubular portion *M*<sup>1</sup> fitted on the end of the slide rod and a length of wire *m*<sup>1</sup> passed at its point *m*<sup>2</sup> through the perforation *k*<sup>1</sup>, substantially as set forth.

### No. 37,819. Adjustable Pattern Chart for Drafting Garments. (*Patron pour tracer les vêtements.*)

Harriet A. Curry, Groton, South Dakota, U.S.A., 19th November, 1891; 5 years.

*Claim.*—1st. In an adjustable dress-pattern, the combination of parts forming the pattern for the back of the dress-waist, composed of the center-back, the next-to-back, and the under-arm portions, each laterally and vertically adjustable on two slotted cross-slides, substantially as described. 2nd. In an adjustable dress-pattern, the combination of parts forming the pattern for the back of the dress-waist, composed of the center-back, the next-to-back, and the under-arm portions, each laterally and vertically adjustable on two slotted slides, and each of said portions being composed of two or more subordinate parts, which parts are independently adjustable with respect to each other, substantially as described. 3rd. In an adjustable dress-pattern, the combination of parts forming the pattern for the back of the dress-waist, composed of the center-back, the next-to-back, and the under-arm portions, each laterally and vertically adjustable on two slotted slides and each of said portions being composed of two or more subordinate parts, which parts are independently adjustable with respect to each other, together with a number of adjustable extension pieces below the lower cross-slide, substantially as described. 4th. In an adjustable dress-pattern, the combination of parts forming the pattern for the back of the dress-waist, composed of the center-back, the next-to-back, and the under-arm portions, each laterally and vertically adjustable on two slotted slides and each of said portions being composed of two

or more subordinate parts, which parts are independently adjustable with respect to each other, together with a number of adjustable extension pieces below the lower cross-slide and the adjustable extensions on the upper end of the center-back portion, substantially as described. 5th. In an adjustable dress-pattern, the combination of parts forming the pattern for the front of the dress-waist, composed of the main piece C, cut away at the top to form the neck opening, the dart-pieces G and H, and the piece I, adjustably attached to C by means of thumb-screws and slotted slides, the arm-hole-forming piece E, independently adjustable with reference to the other parts by means of its circular motion about its point of attachment to said other parts and the lateral adjustability of said point of attachment, and the independently-adjustable strip B, substantially as described. 6th. In an adjustable dress-pattern, the combination of parts forming the pattern for the front of the dress-waist, composed of the main piece C, cut away at the top to form the neck opening, the dart-pieces G and H, and the piece I, adjustably connected to C by means of thumb-screws and slotted slides, the arm-hole-forming piece E, independently adjustable with reference to the other parts by means of its circular motion about its point of attachment to said other parts and the lateral adjustability of said point of attachment, and the independently-adjustable strip B, together with the adjustable extension pieces A, A', A<sup>11</sup>, A<sup>111</sup>, A<sup>1111</sup>, substantially as described. 7th. In an adjustable dress-pattern, the combination of parts forming the pattern for the front of the dress-waist, composed of the main piece C, cut away at the top to form the neck opening, the dart-pieces G and H, and the piece I, adjustably connected to C by means of thumb-screws and slotted slides, the arm-hole-forming piece E, independently adjustable with reference to the other parts by means of its circular motion about its point of attachment to said other parts and the lateral adjustability of said point of attachment, and the independently-adjustable strip B, together with the adjustable extension pieces A, A', A<sup>11</sup>, A<sup>111</sup>, A<sup>1111</sup>, and the adjustable extensions for the two pieces forming the armhole and neck opening, substantially as described.

### No. 37,820. Tobacco Pouch. (*Blague à tabac.*)

William James Cussen, Richmond, Virginia, U.S.A., 19th November, 1891; 5 years.

*Claim.*—1st. The combination of a pouch having a hem formed around its mouth, this hem being provided with a pair of holes at each end and another about midway one of its sides, and a draw-string passed around through this hem, loops *c* being formed in the string outside the holes at the end, and the ends of the string extending out through the side-holes, substantially as described. 2nd. The combination of a pouch provided with a hem around its mouth, and a draw-string passed around the mouth of the pouch through said hem, a portion of the string lying outside the hem at each end to form loops, and the two free parts of the string extending out through the seam, about midway the length of one of its sides, and provided with means for preventing it being drawn back into the seam when the end-loops are drawn taut, substantially as described. 3rd. A tobacco pouch provided with a hem around its mouth and a draw-string passed twice around through said hem and formed into loops *c*, lying outside the pouch at the ends of the hem, the two free ends of said string being extended out of the hem at the side of the pouch, and there tied together, substantially as described.

### No. 37,821. Rubber Shoe.

(*Soulier de caoutchouc.*)

Samuel McKee Noill, Guelph, Ontario, Canada, 20th November, 1891; 5 years.

*Claim.*—A rubber or gum shoe having a piece of oil cloth fixed in the inside of its heel, substantially as and for the purpose specified.

### No. 37,822. Stretcher for Boots and Shoes.

(*Appareil pour clargir les chaussures.*)

Thomas Cheetham, Attleborough, Massachusetts, U.S.A., 20th November, 1891; 5 years.

*Claim.*—1st. The boot and shoe stretcher consisting of a last divided in a vertical longitudinal direction, the two parts hinged together at the heel and each formed interiorly with a groove and with a socket or recess 23, in the instep, and a hinged heel piece in combination with a socket screw having an enlargement 22, which is held and operated in the socket of the instep and a screw member having a head operating in the groove of the toe, substantially as specified. 2nd. The boot and shoe stretcher consisting of a last divided in a vertical longitudinal direction from the toe to the heel, and hinged at the heel and provided interiorly with grooves 20, 20', and with sockets or recesses 23, as explained and also split horizontally from the heel back to line 14, at which point the horizontal heel section thus formed is hinged to the longitudinal divisions, in combination with a socket screw operating in said grooves and having an enlargement 22, which is held and operated in said sockets 23, to expand the last laterally, and a screw as 16, co-operating with the horizontal hinged section to effect vertical expansion, substantially as specified. 3rd. A boot and shoe stretcher consisting of vertical longitudinal divisions or sections 8 and 9, the latter having heel piece 11, to which the back extremity of section 8 is hinged and under which it folds and a horizontal heel section hinged to section 9, so as to swing vertically, the sections 8 and 9 provided with grooves in their toe portions and recesses or sockets 23 in the instep, in combination with a socket screw co-operating with sections 8 and 9 as explained, the socket whereof having an enlargement 22, which is held operated in sockets or recesses 23, and the screw member, a head 19, and a screw, as 16 passing through heel piece 11, and co-operating with said horizontal heel section, substantially as set forth. 4th. The combination with the last divided in a vertical longitudinal direction, the two sections formed by the division hav-



ing a hinged connection and provided each with grooves and sockets, of the socket screw expander operating in said grooves and having an enlargement 22 held in said sockets, the upper end of said socket portion having two ratchets provided with oppositely standing teeth, and the wrench adapted to engage said socket portion between the ratchets, and provided with a pawl for engagement with either of the same, substantially as set forth.

### No. 37,823. Cutting Nipper.

(*Pince pour couper.*)

Sanford Obadiah Root, Lodi, New York, U. S. A., 20th November, 1891; 5 years.

*Claim.*—1st. The combination, with one lever formed with a recess of a second lever passed through the said recess and pivoted therein with a single pivot located in close proximity to the acting edges of the cutters carried by the jaws of the levers, substantially as specified. 2nd. The combination, with the levers pivoted together, with the pivot in close proximity to the acting edges of the cutters, of detachable cutters having shoulders *g*, and *h*, of differing lengths and angles and their outer points in line with the pivot, substantially as specified. 3rd. The combination, with the pivoted levers, the jaws of which are provided with dovetailed recesses, of detachable cutters fitted to said recesses and having two shoulders of differing angles and lengths and a long bearing upon the under face and a shorter bearing in a different plane upon its upper face, substantially as shown and described.

### No. 37,824. Cash Register. (*Régistre de monnaie.*)

William George Latimer, Detroit, Michigan, U.S.A., 20th November 1891; 5 years.

*Claim.*—1st. The combination, with a series of levers, of a series of indicating supporting rods, one upon each lever and carrying a series of indicating tablets arranged in three groups, a series of registering supporting rods, one for each lever, parallel with the indicating supporting rods and resting upon the levers, and a series of registering wheels actuated by these registering supporting rods and divided into three groups, one pair for each group, substantially as described. 2nd. The combination, with the actuating levers, of a series of indicating supporting rods, each provided with a rearwardly projecting stud, a horizontal swinging cross bar, upon which said studs are adapted to engage, the swinging knocker actuating said swinging cross-bar, and a rising and falling cross-bar supported on top of the levers, and carrying a striker arm. 3rd. The combination of a series of levers provided with a series of keys in two banks, representing three like groups of nine keys each, substantially as described, the series of supporting rods, one for each lever, and vertically supported upon the extremity of the levers and carrying indicating tablets arranged in three groups corresponding to the groups of levers, with the tablets of each group in front of each other, and of three stationary zero-tablets correspondingly grouped above the indicating tablets, of the supporting rods, substantially as described. 4th. The combination, with a series of levers, of three groups of registering drums, connected in pairs, substantially as described, of three serrated rollers journaled in axial line with each other, one for each pair of registering wheels, and of a series of supporting rods divided into three groups, one group for each roller, and of rack pawls pivotally secured to the supporting rods and adapted to operate the rollers by the actuation of the levers. 5th. The combination, with a series of levers, of a series of indicating supporting rods supported near the extremities of such levers and provided upon their upper ends with hinged rack pawls, a series of three transverse serrated rollers adapted to be operated by these rack pawls, three groups of serrated registering wheels in pairs, one pair of each group engaging with one of the serrated rollers, respectively, and the other end of each group being provided with an oscillating feed pawl operated by a stud on its actuating registering wheel, substantially as described. 6th. The combination, with a series of levers, of two series of supporting rods supported in vertical guides upon the extremities of these levers, one series of rods being provided with indicating tablets and the other series of rods carrying rack pawls to actuate the registering device, substantially as described. 7th. As an improvement in actuating devices for cash registers and indicators, the combination, with the levers and supporting rods carrying the indicating tablets, of the swinging cross bar *M*, the lugs *L*, on the supporting bars adapted to engage thereon, the cross bar *W*<sup>1</sup>, of the swinging knocker, the striker *W*<sup>1</sup>, having an inclined head and the shoulder *W*<sup>2</sup>, the supporting rod *W*<sup>2</sup>, provided with links *W*<sup>3</sup>, to which the striker is hinged, the cross bar *W*<sup>3</sup>, carrying the supporting rod *W*<sup>2</sup>, and being vertically movably supported on top of the levers by the arms *W*<sup>3</sup>, substantially as described. 8th. As an improvement in actuating devices in cash registers and indicators, the combination of the levers and registering drums and wheels, the registering rods *P*, the rack pawls *Q*, hinged thereto in parallel relation by the links *R*, substantially as described. 9th. As an improvement in actuating devices in cash registers and indicators, in combination with the levers and registering device, the registering supporting rods *P*, the rack pawls *Q*, pivotally hinged thereto in parallel relation by the links *R*, and the adjusting set screws *V*, substantially as described. 10th. The combination, with a series of levers, and the series of registering supporting rods, of a controlling device consisting of a series of pins *P*<sup>2</sup>, on the registering supporting rods and the engaging bar *P*<sup>3</sup>, provided with a longitudinal recess *P*<sup>1</sup>, adapted to engage with the series of pins *P*<sup>2</sup>, said engaging bar being controlled by the movement of the levers to lock the registering supporting rods in their normal position, substantially as described. 11th. The combination, with the series of levers, and the series of registering supporting rods, of a controlling device consisting of a series of pins *P*<sup>2</sup>, on the registering supporting rods, the engaging bar *P*<sup>3</sup>, provided with a longitudinal recess *P*<sup>1</sup>, the spring *P*<sup>5</sup>, adapted to swing said engaging bar into engagement with the series of pins *P*<sup>2</sup>, and the arm *P*<sup>6</sup>, adapted to throw said engaging bar out of engagement with the series of pins

under the control of the levers, substantially as described. 12th. The combination, with the series of levers and the series of registering supporting rods, of a controlling device consisting of the series of ratchet bars *P*<sup>1</sup>, on said registering supporting rods, the engaging bar *P*<sup>3</sup>, adapted to engage into said ratchet bars under the control of the levers, and the stirrups *O*<sup>1</sup>, or their equivalents, connecting the registering supporting rods and levers, substantially as described. 13th. The combination, with the series of levers and the series of registering supporting rods, of a controlling device consisting of the series of ratchet bars *P*<sup>2</sup>, on said registering supporting rods, the engaging bar *P*<sup>3</sup>, adapted to engage with said ratchet bars under the control of the levers, and the stirrups *O*<sup>1</sup>, or their equivalents, connecting the registering supporting rods and levers, substantially as described. 14th. The combination, with the series of levers and the series of registering supporting rods, of a controlling device consisting of two series of ratchet bars *P*<sup>2</sup>, *P*<sup>3</sup>, on the front and rear of the registering supporting rods, the engaging bars *P*<sup>3</sup>, *P*<sup>4</sup>, adapted to engage with said ratchets under the control of the levers, substantially as described, and the stirrups *O*<sup>1</sup>, or their equivalents connecting the levers and registering supporting rods. 15th. The combination, with the series of levers and the series of indicating rods, of indicating tablets supported on flexible extensions of said supporting rods and grouped in front of each other, and the incline *a*, above said groups of tablets, substantially as described. 16th. The combination, with the series of levers *C*, of a mechanically operated drawer consisting of the cross bar *W*<sup>1</sup>, supported on top of the levers, and having the rearwardly projecting arm *p*<sup>1</sup>, the rock shaft *q*<sup>1</sup>, operated by said arm, the vertical shaft *n*<sup>1</sup>, the intermeshing bevel pinions *r*, *s*<sup>1</sup>, secured on the rock shaft *q*<sup>1</sup>, and shaft *n*<sup>1</sup>, respectively, the swinging drawer *m*<sup>1</sup>, pivotally supported with shaft *n*<sup>1</sup>, the coil spring *t*, adapted to transmit motion from the shaft *n*<sup>1</sup>, to the swinging drawer and the catch *v*, on the arm *p*<sup>1</sup>, adapted to lock the drawer, all arranged to operate substantially as described. 17th. In a cash register, the combination with a series of keys of a rotary cash drawer pivoted upon the shaft, of a spring designed to be put under tension to rotate said shaft by the depression of one or more keys, a catch or stop for said drawer adapted to be withdrawn by the depression of said keys, all so arranged that the drawer is rotated on the shaft by the tension of the spring at each depression of the key or keys, substantially as described.

### No. 37,825. Bark Cutter. (*Coupe-écorce.*)

Byron Holbrook, Milwaukee, Wisconsin, U.S.A., 20th November, 1891; 5 years.

*Claim.*—1st. In a bark-cutter, the combination of a rotary disk carrying knives at an angle to its plane, tangent to its hub and extended to its periphery, a surface opposing the knives and a stationary ring encircling the disk adjacent to said surface, substantially as set forth. 2nd. In a bark-cutter, the combination of a rotary disk carrying knives at an angle to its plane, tangent to its hub and extended to its periphery, a corrugated surface opposing the knives, and a stationary ring encircling the disk adjacent to said surface and having transverse corrugations upon its inner face, substantially as set forth. 3rd. In a bark-cutter, the combination of a rotary disk carrying knives at an angle to its plane, tangent to its hub and extended to its periphery, a surface opposing the disk and provided with an opening, a feed mechanism arranged at an angle to said opening and a stationary ring encircling the disk adjacent to said surface, substantially as set forth. 4th. In a bark-cutter, the combination of a casing, a slotted rotary disk arranged therein and provided with rearwardly extended wings, knives secured to the wings to extend through the disk-slots and to the periphery of the disk, a surface opposed to the knives, and a stationary ring encircling said disk adjacent to said surface, substantially as set forth. 5th. In a bark-cutter, the combination of a casing, a rotary disk arranged therein and having tangential slots extended to its periphery, wings on the rear of the disk adjacent to the slots and also extended to the periphery of said disk, knives secured to the wings to extend through the disk-slots the whole length of the same, a surface opposed to the knives, and a stationary ring encircling the aforesaid disk adjacent to said surface, substantially as set forth.

### No. 37,826. Treatment of Certain Matts and Ores for the Separation of Nickel and Cobalt from Copper.

(*Traitement de la matte et de minerai pour la separation de nickel et cobalt du cuivre.*)

Henri Louis Herenschmidt, of Petit Quevilly, France; 20th November, 1891; 5 years.

*Claim.*—1st. The herein described process for precipitating copper in the metallic state contained in cobalt, nickel and copper sulphate or chloride liquors (with or without iron) by the action of raw matts of the metals to be left in solution or of the proto-sulphide ores of said metals, whether said matts or ores contain copper or not, as specified. 2nd. The herein described process of precipitating copper in the metallic state in nickel and copper sulphate and chloride liquors with or without iron by means of the raw matt of said metals or of the proto-sulphide ores of said metals, as specified. 3rd. The herein described process of precipitating copper in the metallic state from copper, sulphate or chloride liquors with or without iron by means of raw matts of nickel or of cobalt, all substantially in the manner and for the purpose specified.

### No. 37,827. Trestle. (*Tréteau.*)

Thomas James Peck, Ballston Spa, New York, U. S. A., 20th November, 1891; 5 years.

*Claim.*—1st. A carpenter's trestle, comprising a bar or body provided with supporting legs, vertical passages or sleeves at the ends of the body open at one side and apertured at the other, tubular

friction grips D inserted through said open sides and provided with lugs or arms projecting through said apertures, and the cam levers pivoted to said lugs or arms, and the upper movable section having depending standards extending down through said passages or sleeves and tubular grips, substantially as set forth. 2nd. A carpenter's trestle, comprising the bar or body provided at its ends with castings B formed with leg sockets and intermediate vertical sleeves, the supporting legs entering said sockets removably at their upper ends, and the upper vertically movable section or beam having sockets registering with said sleeves, standards removably mounted at their upper ends in said sockets and extending down through said sleeves, and means for securing said standards at any desired height, substantially as set forth. 3rd. A carpenter's trestle, comprising the body or bar A, channelled longitudinally along its upper face, and apertured near its ends, the castings B, on which said bar or body rests, and provided with a central vertical sleeve registering with said apertures, cut away on one side and apertured oppositely thereto, the screw threaded sockets *b b* at opposite sides of said sleeves, the tubular friction grips D passed into the sleeves through their open sides and having lugs or arms *g* extending through the sleeve apertures, cam levers pivoted to the ends of said lugs or arms, the legs *g* screwed at their upper ends into said sockets, the beam C resting in the said channel and having end sockets *f*, in its lower face in alignment with the apertures in the channelled bar, and the standards screwed at their upper ends into said sockets *f*, and extending down through the sleeves and tubular grips, substantially as set forth.

### No. 37,828. Envelope. (*Enveloppe.*)

Joseph F. Stokes, Philadelphia, Pennsylvania, U.S.A., 20th November, 1891; 5 years.

*Claim.*—1st. The envelope A, provided with a perforation B, located midway on a line with the crease or fold, C, of one of the end flaps, in combination with the cords or threads, D, which pass through the said opening and have their inner ends gummed or secured to the upper and lower corners of the envelope, substantially as and for the purpose specified. 2nd. The combination in a fancy envelope of the perforation B, and silk cord or thread D, of bright or plain color, having attached thereto the bow of ribbon E, or other suitable device, substantially as shown and described.

### No. 37,829. Combined Escape Blow-off and Drain Valve. (*Soupape de purge et de drain combinées.*)

James McKim, Peterborough, Ontario, Canada, 20th November, 1891; 5 years.

*Claim.*—1st. In a combined escape blow-off and drain valve, a valve disk A attached to a spindle passing slidably through an adjustable abutment and having the projecting end threaded and provided with a wheel nut, an abutment taking the form of a cross-bar or casing cover through which said spindle passes and against which the wheel nut bears, and forming an adjustable abutment for springs bearing against the valve disk, springs extending between the valve disk and adjustable abutment tending to press them apart, and through which the valve spindle passes, and means for holding the abutment in position, substantially as set forth. 2nd. The combination of a valve disk A attached to a valve spindle, a valve spindle A' attached to said valve disk and passing through an adjustable abutment, and having a threaded projecting end, a wheel nut C upon said threaded end bearing on the abutment, an adjustable abutment through which the valve spindle passes, and means of retaining the same in position, a spiral spring E coiled upon the valve spindle between the valve disk and abutment, and plate springs F upon said spindle between the valve disk and abutment, substantially as set forth. 3rd. The combination of a cross-bar B held adjustably on studs, studs D holding said cross-bar adjustably on long threaded ends between lock nuts *d d*, a valve spindle A' carrying a valve disk and passing through said cross-bar, and a spring E coiled upon said spindle between said cross-bar and valve disk, substantially as set forth. 4th. The combination of a valve spindle A held slidably in an adjustable abutment and having a valve disk at one end and a wheel nut upon the other, an adjustable abutment through which said spindle passes, and elastic springs F upon said spindle between said abutment and valve seat, substantially as set forth.

### No. 37,830. Observatory Car.

(*Char observatoire.*)

Thomas J. McBride, Winnipeg, Manitoba, Canada, 20th November, 1891; 5 years.

*Claim.*—1st. A passenger car constructed with one or more observatory sections provided with transparent walls and seats for passengers above the floor tiers of seats so arranged and supported that the observatory section is continuous with and undivided from the main body of the car, substantially as described. 2nd. A passenger car constructed with one or more observatory sections having its interior continuous therewith provided with transparent walls, and having elevated seats in the upper or observatory portion and the lower tier of seats on the car floor with a common or central aisle space extending from the floor to the top of the car. 3rd. The combination with the car body having a lower or floor tier of seats crosswise of the car, of observatory sections continuous with the body of the car having transparent walls, and elevated seats in said observatory section parallel with said lower seats having their foot rests in line with the backs of the lower seats. 4th. In the sleeping car or other passenger coach having its seats arranged in pairs face to face, the combination with the car body of the upwardly extended observatory sections having transparent walls and elevated face to face seats located therein parallel with the lower seats alternating therewith and having their foot rests over the backs of the lower seats, whereby comparatively little obstruction is interposed in

the central upper space over the lower pair of seats. 5th. In the sleeping car, or other passenger coach having its seats arranged in pairs face to face, the combination with the car body of the upwardly extended observatory sections having transparent walls, the elevated pairs of faced seats located in the observatory portion parallel and alternating with the lower seats and having the foot rests in line with the back thereof and supports extending from the backs of the lower seats to the foot rest portion of the upper seats provided with steps on their aisle face *f* affording access to the upper seats. 6th. The combination with the car body of the observatory sections having their interiors continuous with the car body and a double central roof in the observatory sections having its two parts spaced apart and provided with air inlets whereby the top of the observatory is kept comparatively cool. 7th. The combination with the car body of the upwardly extended observatory sections continuous therewith provided with double roofs spaced apart, transoms in the lower wall thereof leading to the interior of the observatory and the car body, substantially as described. 8th. The combination with the car body of the observatory section having its interior continuous therewith, provided with transparent side and end walls and transparent sections in its roof directly over the elevated seats, substantially as described. 9th. The combination with a car body having an observatory section equipped with seats above the floor tier of seats, of a stair located between the backs of two lower seats and affording access to the upper seats at a point adjoining the side wall of the car or in the space usually occupied by the upper berths. 10th. The combination with a car body having an observatory section of seats in said observatory section having their foot rests at a lower level and adjoining the walls of the car, substantially as described. 11th. The combination with a car window of a movable wire screen outside the same for protecting the glass from flying soot and cinders. 12th. In a car, having observatory sections extended above the body of the same, the combination with the glass sections connecting the roof of the main car with the roof of the observatory section of a drop shield for said glass section located outside the same, substantially as described. 13th. In a car having observatory sections extended above the level of the body of the same, the combination with a curvilinear glass section or window uniting the roof of the observatory with the roof of the car body, a pivoted shield outside the window and a hand pull located inside the window and connected to the shield for controlling the same, substantially as described. 14th. The combination with a window frame of a pivoted window sash having one or more of its sides or ends connected to the frame by an extensible diaphragm, substantially as described. 15th. The combination with the car body, of a car window pivoted at its forward end and having its upper and lower sides connected to the car body by extensible diaphragms, substantially as and for the purpose set forth. 16th. The combination with a car body, of a car window pivoted at its forward end and having extensible diaphragms connecting its upper and lower sides with the car body and an operating device for opening and closing the window and securing the same in any desired position, substantially as described. 17th. The combination with the car body of the car window pivoted at its forward end having extensible diaphragms connecting its upper and lower sides with the car body, a slotted catch plate secured to the inner face of the window frame and a ratchet pivoted to the window and working through said slotted catch plate, substantially as described. 18th. The combination with the window framing having rabbeted and grooved seats of the window sash fitting the rabbeted seat and provided with raised tenons fitting the grooves, substantially as described. 19th. The combination with the window frame having rabbeted seats for the sash provided with grooves for packing strips of the window sash fitting said seats and having tenon-like elastic packing strips fitting said grooves, substantially as described. 20th. A railway car provided with pivoted windows having their upper and lower edges connected to the car body by extensible diaphragms some of the windows on each side of the car being pivoted at the reverse end from the others, whereby some of the windows will always be available for opening outward, with their pivoted ends forward or in the line of travel, without turning the car, substantially as described. 21st. A passenger car having upper and lower tiers of side windows and equipped on its interior with elevated seats facing the upper windows and having the sections on its side walls intervening between the tiers of windows swelled or bulged outward to afford additional foot room for the occupants of the elevated seats, substantially as described. 22nd. In a passenger car having upper and lower tiers of windows in its side walls, the combination with the car body and the elevated seats located therein facing the upper window of removable slats for spanning the space between the seats and the car body and the movable cushions on said seat, whereby said elevated seats may be converted into upper berths. 23rd. The combination with the elevated seats of the pivoted foot shields, substantially as described. 24th. In a passenger car, an observatory section having curvilinear glass sections uniting the upper deck of the roof with the side walls of the car, substantially as described. 25th. In a passenger car, the combination with a pair of face to face seats arranged crosswise of the car of a lounge or side seat spanning the space between the face to face seats adjacent to the side wall of the car, substantially as described. 26th. In a passenger car, the combination with the face to face seats of a pair of pivotally connected sliding cushions constituting a side seat and back adjacent to the side wall of the car and movable on their supports, whereby they may be drawn down to fill the space between the lower seats and form a berth, substantially as described. 27th. The combination with a car having an observatory section of a convertible seat and berth located in its observatory space above the lower tier of seats, substantially as described. 28th. In a passenger car, an open skeleton like frame spanning the aisle space above the lower tier of seats for supporting elevated seats and assisting in the support of the roof, substantially as described. 29th. In a passenger car, an observatory section having its roof continuous in cross section with the upper or elevated deck of the main roof, windows in the angles between the observatory and main roof, upper tiers of windows in the corresponding portions of the side walls and elevated seats on the interior of the car, in position to utilize said windows, without interfering with the ordinary usage of the lower part of the car, substantially as described.

**No. 37,831. Traction Engine.***(Machine de traction.)*

James Beckner, St. Joseph, Missouri, U.S.A., 20th November, 1891; 5 years.

*Claim.*—1st. In a traction engine, substantially as described, the combination of the frame supporting the boiler, the steam cylinders, the double crank shaft operated by the pistons of the cylinders, the laterally adjustable gear carried by said crank shaft, the drum shaft, and the fast and slow gears carried by said drum shaft and adapted to engage the gear of the double crank shaft, substantially as specified. 2nd. In a traction engine, the combination of the driving shaft, the drum shaft adjustable toward and from the driving shaft and carrying the slow and fast speed gears, and the driving gear adjustable on the driving shaft to gear with either speed gear on the drum shaft, substantially as specified. 3rd. In a traction engine, the combination with the front axle, of the pivot section attached to the upper side thereof and having a central socket piece, an upper section having a socket in its under side to receive the central piece of the lower section, the vertical pivot bolt or shaft 67, taking through and connecting the sections, and the top section connected to the intermediate section and lower sections and to the feed motor tank, substantially as specified. 4th. In a traction engine, the carrying frame, the rear axle and the connection therefor, comprising the top plate provided with the integral arms depending from the four corners which straddle the axle and frame, and the plates fitted on said arms and clamped against the axle by nuts, substantially as specified.

**No. 37,832. Pipe Connection.** *(Joint de tuyau.)*

Nathaniel Edward Smith and John Rhoderic McPherson, both of Jersey City, New Jersey, U.S.A., 23rd November, 1891; 5 years.

*Claim.*—1st. The improved pipe-connection, consisting of one or more parts of soft metal pipe with concave end or ends, in combination with a perforated button or washer, adapted to fit a concave end or concave ends, and a connection for drawing the end or ends up against the button, substantially as described. 2nd. In a pipe-connection, the combination with a pipe to be connected having an enlarged end, of a perforated button, and a connecting piece consisting of a screw-threaded cup holding and directly engaging the pipe end, and adapted to engage the screw-threaded end at a complementary portion of a pipe, substantially as described. 3rd. In a pipe-connection, the combination with a pipe to be connected having an enlarged end, of a perforated metal button being shaped to fit into and upon the concave and flattened end of the pipe, and a connecting-piece consisting of a screw-threaded cup holding and directly engaging the pipe-end and adapted to engage the screw-threaded end of the complementary portion of a pipe, substantially as described. 4th. In a pipe-connection, the combination with a pipe to be connected having an enlarged end, of a perforated metal button, a connecting-piece consisting of a screw-threaded cup, receiving the end of the pipe and provided with a shoulder to retain the enlarged end of the pipe, a ring, thimble, or washer interposed between the shoulder and the pipe-end, and a complementary portion of a pipe engaged by the screw-cup, substantially as described.

**No. 37,833. Wash Boiler.** *(Bouilloire.)*

William Henry Barron, Port Huron, Michigan, U.S.A., and Henry Barron, Forest, Ontario, Canada, 23rd November, 1891; 5 years.

*Claim.*—In a wash-boiler, the combination, with the boiler, of a removable frame formed of a single piece of wire having end loops and side loops forming supporting-legs, a cross-bar having downwardly-inclined ends secured to the vertical portion of the end loops of the frame, and a webbing secured to the frame and extending over the cross-bar, substantially as described.

**No. 37,834. Telephone Tablet.***(Tablette pour téléphone.)*

Eleanor Tatum, Avondale, Cincinnati, a signee of Walter Stephens Mendenhall, Covington, Kentucky, all in U.S.A., 23rd November, 1891; 5 years.

*Claim.*—1st. A telephone-tablet composed, substantially, of the bed 2, the hook-bars 3, the catch 4, adapted to be secured to the lid of the telephone-box, substantially as specified. 2nd. In combination with the tablet 2, with device for attaching the same to the lid 1, the weighted roll 7, secured by stotted standards 9 upon the upper side of said tablet, substantially as specified.

**No. 37,835. Lock for Satchels, Bicycles and Baggage Checks.** *(Fermature pour valises, bicyclet et étiquettes des bagages.)*

John Cope Lockard, Bloomsburg, Pennsylvania, U.S.A., 23rd November, 1891; 5 years.

*Claim.*—1st. The combination of the sliding locking-bar, spring actuated pivoted tumblers, and pivoted dogs, the said bar being arranged between the tumblers, substantially as described. 2nd. The spear-headed sliding bar E, in combination with the spring actuated pivoted dogs, and spring actuated pivoted tumblers having shouldered lever arms C, substantially as described. 3rd. The combination of the case provided with a series of studs or guiding pins arranged at different altitudes and at different distances from the vertical center of the case, the pivoted tumblers, the pivoted dogs, and the spear-headed sliding bar, the said combination being adapted to be operated by a key with one or a plurality of wards, substantially as described.

**No. 37,836. Eye Shield.***(Appareil de protection pour les yeux.)*

Benjamin Franklin Lumb and Otis Madison Shaw, both of Boston, Massachusetts, U.S.A., 23rd November, 1891; 5 years.

*Claim.*—1st. An eye-shield comprising lenses of flexible transparent water-proof material shaped to cover the eyes and more or less of the face, a binding of flexible material, a ventilated flexible cushion at the inner side of said lenses adapted to bear against the face, and means for supporting said shield in position on the face. 2nd. An eye-shield comprising a body of flexible, transparent water-proof material shaped to cover the eyes and a desired portion of the face, a binding of flexible material, a flexible cushion at the inner side of the body adapted to bear against the face and having ventilation openings in proximity to the inner face of said body, and means for supporting said shield in position on the face, substantially as and for the purpose set forth. 3rd. An eye-shield comprising a body of flexible, transparent water-proof material, a binding of flexible material, a ventilated flexible, non-metallic cushion at the inner side of said body adapted to bear against the face, and means for supporting said shield in position on the face, substantially as and for the purpose set forth. 4th. A face-mask comprising a lens or lenses constructed of flexible, transparent water-proof material shaped to cover the eyes and a part or the whole of the face, a binding of cloth or similar flexible material, and means for supporting said mask in position on the face, substantially as described.

**No. 37,837. Railway Rail Fastening for Metal Ties.** *(Attache pour traverses métalliques de rail de chemin de fer.)*

George W. Young, Granite, Montana, U.S.A., 23rd November, 1891; 5 years.

*Claim.*—1st. A metal tie formed in two pieces and having a crooked spike-opening formed part way in the meeting face of each part, substantially as set forth. 2nd. The herein described metal tie, composed of two parts, one part having an end lug cast therewith and adapted to overlap the other part, and having a crooked spike-opening formed part way in the meeting face of each part, substantially as specified.

**No. 37,838. Process of Refining Mats of Nickel and Copper.** *(Mole de raffinage de la matle de nickel et de cuivre.)*

Jules Garnier, Paris, France, 23rd November, 1891; 15 years.

*Claim.*—The process of treating mats of the kind herein specified, which consists in partially desulphurising them in a converter or upon a hearth and removing the last vestiges of sulphate they contain, by fusing the alloy in a water jacketted cupola with the addition of basic fluxes (composed approximately of 70 per cent. of bases and 30 per cent. of silica and fluor spar or other fluorides) the desulphurised alloy of nickel and copper thus obtained being then deprived of its carbon silicon, and the remainder of the iron, by slightly refining it as specified and afterwards adding (in order to extract the last traces of oxygen) an alloy having a base of aluminium, nickel and copper, or of magnesium sodium and other reducing metal or alloy suited to improve the good qualities of the alloy of nickel and copper to be obtained.

**No. 37,839. Combined Frame and Holder for Sacks.** *(Cadre et accroche-sac combinés.)*

Thomas Wentworth Harrison, Topeka, Kansas, U.S.A., 23rd November, 1891; 5 years.

*Claim.*—1st. The herein shown and described frame for a bag or sack composed of two side sections, A and B, the folding end sections, C and D, uniting the side sections at one end, and the folding end sections, E and F, uniting the side sections at their other end, substantially as set forth. 2nd. The herein shown and described frame for a bag or sack composed of the side sections, A and B, and their folding end sections, C, D, and E, F, the joints, P and Q, of the end sections projecting inward, and the joints,  $s^1$ ,  $s^2$  and  $s^3$ , between the end and the side sections projecting outward, substantially as and for the purpose described. 3rd. The combination with the frame of a series of sections hinged together, one section having an oblong opening, of the rotatable lock bolt having an oblong head and secured to a corresponding opposite section of the frame and adapted to have its head thrust through and set cross-wise of the said opening, and the spring for engaging with the said head, substantially as and for the purpose described. 4th. The combination with the frame composed of a number of sections hinged together, one section having an oblong opening, of the lock bolt having an oblong head, and a groove, 28, the pin, 20, for securing the lock bolt to a section of the frame and permitting a partial rotary movement of the said bolt, and the spring 21 to prevent the back movement of the said bolt, substantially as and for the purpose described. 5th. The combination with the frame, of the holder secured to the side of the frame by rule hinge joints, and adapted to hold the frame in a horizontal position and to fold upward, substantially as and for the purpose described. 6th. The combination with the frame and the holder or bail, c, angular in cross-section of the bracket support having its head provided with the depression, V, which corresponds to the holder in cross-section, substantially as and for the purpose described. 7th. A combined frame and holder for sacks composed of a series of sections hinged together, one of the sections having lugs, d and e, and the holder hinged by a rule joint to the said lugs, substantially as and for the purpose described. 8th. The combination with the frame composed of a series of sections hinged together, one

hinge joint projecting beyond the opposing sides of the sections, of the bag secured to the frame, and packing strips secured to the opposing sides of the frame, substantially as and for the purpose described.

### No. 37,840. Felt for Paper Makers.

(*Feutre pour fabricants de papier.*)

Duncan Mc Allum Fuller, Akron, U.S.A., 23rd November, 1891; 5 years.

*Claim.*—As a new article of manufacture, a paper maker's felt consisting of a fabric woven in tubular or endless form, having the loosely-twisted threads woven in as warp, and the hard-twisted threads as the filling, having edges finished and the fabrics shrunk or fulled, substantially in the manner described.

### No. 37,841. Waggon Brake. (*Frein de wagon.*)

Arthur W. Miller, Capon Road, Virginia, U.S.A., 21th November, 1891; 5 years.

*Claim.*—1st. In a waggon, the tongue C, having loop *g* and breast-chain F connected therewith by a ring *j*, the strap K, having ring *k*, the eye-bolt L, bar M, eye-bolt N, strap O, eye-bolt P, levers Q, Q', connected by link *q*, and the brake-bar E, attached to one end of lever Q, all combined and arranged as shown and described. 2nd. In a train of mechanism for operating a waggon-brake from the breast-chains, the bar M, having a notch *m*, and held up to the vertically-apertured tongue by a guide *m*<sup>1</sup>, and the pivoted pin M<sup>2</sup>, in combination with the levers R, S, the latter having a cam or side plate *n* for raising the former, and the lever S, being connected with a hand lever, as and for the purpose set forth.

### No. 37,842. Car Coupler. (*Attelage de chars.*)

Moses Claussen, Goldendale, Washington, U.S.A., 26th November, 1891; 5 years.

*Claim.*—The herein described car coupling, the same comprising a draw head having a projection on its upper side with a central vertical bore, a pin moving through said draw head and bore with an enlarged head at its upper extremity, the bottom of the opening in the draw head inclining forward toward its mouth, a depending finger at the top of said mouth whose edges converge approximately to a point standing in front of the mouth, and a ball within said draw head normally resting against said finger, as and for the purpose set forth.

### No. 37,843. Nursery and Lawn Car.

(*Char d'enfants pour pelouses, etc.*)

Judson A. Elliott, Cincinnati, Ohio, U.S.A., 26th November, 1891; 5 years.

*Claim.*—The herein described nursery and lawn car comprising a platform mounted upon fore and aft wheels adapted to travel in a circular plane, the movable axle bearings whereby the wheels are adjusted in relation to a common center in the plane of their movement, the extensible radial arm pivoted on the said common center and extending therefrom to the platform in combination with the friction clutch and the propelling lever, substantially as herein set forth.

### No. 37,844. Attachment for Plows.

(*Dispositif pour charrues.*)

John Creighton and Clinton H. Drury, both of Hartford, Ohio, U.S.A., 26th November, 1891; 5 years.

*Claim.*—1st. The plow attachment comprising the rod or bar adjustably clamped to the handles and provided at its outer projecting end with a series of spring metal blades having their curved shanks secured thereto, each blade having an independent yielding movement, substantially as specified. 2nd. The plow attachment comprising the slotted bar or rod adjustably clamped to the handles and provided at its outer projecting portion with a series of spring metal blades having their turned upper ends inserted in the slots in the said bar and keyed therein, substantially as specified.

### No. 37,845. Eye for Dresses and other Garments. (*Oeillet pour robes et autres vêtements.*)

Henry Andrew Francis, Toronto, Ontario, Canada, 26th November, 1891; 5 years.

*Claim.*—As an improved eye for dresses and other garments, a wire or pin bent substantially as shown so that when connected to the garment the loop or eye, *a*, only is exposed, substantially as and for the purpose specified.

### No. 37,846. Heating Apparatus.

(*Appareil de chauffage.*)

Charles De Zang Howard, Syracuse, New York, U.S.A., 26th November, 1891; 5 years.

*Claim.*—1st. In an apparatus for heating buildings, the combination, with a hot-air furnace, of a hot-air conduit leading from said furnace, two ducts connecting said conduit with each apartment to be heated, one of said ducts for the admission of hot air into an apartment and the other for the exit of cool air from said apartment, a damper located in the conduit, between each apartment, for

controlling the quantity of hot air to an apartment, and a heat generator located in the hot-air conduit. 2nd. In an apparatus for heating buildings, the combination, with a hot-air furnace, of a hot-air conduit leading from said furnace, ducts connecting said conduits with the apartments to be heated, each alternate duct admitting hot air into an apartment and the other permitting the exit of cool air from an apartment, dampers located in the conduit for controlling the quantity of hot air to an apartment, and a heat generator located in said conduit.

### No. 37,847. Feeder for Heaters.

(*Alimentateur pour moissonneuses.*)

William Jones, Le Grande, Oregon, U.S.A., 26th November, 1891; 5 years.

*Claim.*—1st. The combination, with a heater, of a chute arranged to deliver into the fire pot, and having a hopper at its upper end, a revoluble bucket held to turn in the chute beneath the hopper, and means for turning the bucket, substantially as described. 2nd. The combination, with a heater, of a chute arranged to deliver into the fire pot and carrying a hopper at its upper end, a revoluble bucket mounted in the upper end of the chute and beneath the hopper, said bucket having an opening on one side, and a tongue pivoted in the hopper and extending into the path of the bucket, substantially as described. 3rd. The combination, with a heater, of a chute arranged to deliver into the fire pot of the heater and provided with a hopper at its upper end, a revoluble bucket held to turn in the chute, said bucket being arranged beneath the hopper and having a side opening, and a swinging door pivoted in the mouth of the chute, substantially as described. 4th. The combination, with a fire pot having an oscillating grate, of a chute arranged to deliver into the fire pot and carrying a hopper at its upper end, a revoluble bucket arranged in the chute and beneath the fire pot, and a lever mechanism for shaking the grate at each revolution of the bucket, substantially as described. 5th. The combination, with a revoluble feed bucket, a fire pot and an oscillating grate having a laterally extending arm, of a bell crank pivoted beneath the bucket, said crank having one arm connected with the grate arm and the opposite arm provided with a weight, and a crank connection between the feed bucket shaft and the bell crank, substantially as described. 6th. The combination, with a fire pot and an oscillating grate having a laterally extending arm, of a revoluble feed bucket, a bell crank having one arm connected with the grate arm and the opposite arm provided with a weight, a crank secured to the bucket shaft and provided with a depending connecting rod, a block pivoted to the connecting rod, said block having a hook to engage the bell crank, and a finger curved to extend above the hook, and a trip for the finger, substantially as shown and described. 7th. The combination, with a revoluble bucket, a fire pot and an oscillating grate having a laterally extending arm, of a weighted bell crank pivoted above the arm, and connected therewith, a spring arranged to impinge on one side of the arm, and means for raising and tripping the bell crank by the movement of the revoluble bucket, substantially as described.

### No. 37,848. Method and Apparatus for Sorting Grits and other Granular Substances. (*Mode et appareil pour le triage des grains grossiers et autres substances granulaires.*)

Carl Hagenmacher, Budapest, Hungary, 26th November, 1891; 15 years.

*Claim.*—1st. The method of sorting or purifying grits, semolina, and other granular material by means of a single undivided air current by causing such air current to pass in an upward direction through a casing into which the grits or other material to be acted upon are made to pass in a descending direction, a series of separate collecting compartments being arranged immediately below the air current, so that this in acting upon the grits effects the sorting thereof in the said compartments according to the weight of the particles, substantially as described. 2nd. In apparatus for sorting or purifying grits, semolina, and other granular materials, the combination of the collecting compartments *l*, having a sliding adjustment for regulating the different quantities and qualities of the grits to be sorted substantially as described.

### No. 37,849. Air Pump Attachment for Stoves or Furnaces. (*Dispositif aux pompes à air pour poêls et fournaies.*)

George Samuel Boyler and Frederick Rothwell, Havelock, Ontario, Canada, 26th November, 1891; 5 years.

*Claim.*—1st. In combination, an air pump, an air chamber surrounding said air pump, pipe leading from the air chamber into a stove or furnace near to or at the fire grate, and the necessary valves and packing, all substantially as and for the purpose hereinbefore set forth. 2nd. An air pump surrounded by an air chamber and attached to a stove or furnace, a pipe leading from the air chamber to the fire grate, and valves and cushions all substantially as and for the purposes hereinbefore set forth.

### No. 37,850. Gravity Plumb Level.

(*Niveau à plomb de gravité.*)

Benjamin A. Mounts, Dallas, Texas, U.S.A., 26th November, 1891; 5 years.

*Claim.*—1st. The combination, with a rule having a central opening of the two glass disks B, formed on their inner sides with the annular recesses B', which increase in depth as they extend outward and having the central recesses B', and the weighted needle having

the central transverse pivot, fitting in the recesses  $b^1$ , of the glass disks, substantially as set forth. 2nd. The combination, of the rule having the central opening, and having the plumb line  $P$ , marked longitudinally on its side, the glass disks secured in said central opening, and the weighted needle pivotally supported between the said disks, substantially as set forth. 3rd. The combination, of the rule formed with the central opening  $A$ , and the annular strip  $A^2$ , in said opening, the glass disks  $B$ , formed on their inner sides with the annular recesses  $B^1$ , which increase in depth as they extend outward and having the scales  $E$ , marked upon them, and the weighted needle pivotally supported between the glass disks, substantially as set forth.

### No. 37,851. Coin Holder. (*Porte-monnaie.*)

Gerald de Courcy O'Grady and John Robinette Collins, both of Toronto, Ontario, Canada, 26th November, 1891; 5 years.

*Claim.*—1st. In a coin holder, the combination with the concentric sides, the flat top and bottom with straight sides connecting the concentric sides, of the lip or catch designed to fit within the slot or recess and thereby secure the holder together, substantially as and for the purpose specified. 2nd. The combination of the concentric sides  $C$ , and  $D$ , the ends  $A$ , and  $a$ , the lip  $a$ , having a slot  $b^1$ , cut as shown so as to form shoulders  $a^1$ , by bending the lip or side  $a$ , in the manner shown and for the purpose specified. 3d. The combination with the concentric sides  $C$ , and  $D$ , the straight ends  $A$ , and  $B$ , having notches  $c$ , and  $d$ , of the lip or catch  $a$ , having the slot  $b^1$ , made at its bending point as shown and designed to fit within the recess or slot  $b$ , as specified. 4th. The combination with the concentric sides  $C$ , and  $D$ , the straight ends  $A$ , and  $B$ , having notches  $c$ , and  $d$ , and slots  $c^1$ , and  $d^1$ , of the lip or catch  $a$ , having slots  $b^1$ , made at its bending joint as shown and designed to fit within the recess or slot  $b$ , as specified.

### No. 37,852. Car Roof. (*Toiture de chars.*)

Curtis M. Jennings, St. Louis, Missouri, U. S. A., 26th November, 1891; 5 years.

*Claim.*—1st. In a car roof, the combination of the sheets united at their sides by means of joints consisting of double bends forming a rib and a nailing flange on one of the sheets, a single bend forming a flange on the other sheet, and a cap covering said rib and flange and riveted thereto, substantially as shown and described. 2nd. A car roof, consisting of sheets united at their sides by joints consisting of double bends in one of the sheets, forming a rib and a nailing flange, a single bend in the other sheet forming a flange fitting against said rib, a cap covering said flange and rib and riveted thereto, and such being further united at their ends by joints consisting of double bends in one of the sheets, forming a rib and a nailing flange, and a double bend in the other sheet, forming a rib covering the rib having a nailing flange, substantially as set forth. 3rd. In a car roof, the combination of the sheets united at their sides and ends by suitable joints, and caps covering the corners of the sheets and bolted to the framing of the car roof, said caps having grooves to receive the joints of said sheets, and projections between the grooves, which rest upon said sheets and having flat upper surfaces to support the running board, substantially as set forth. 4th. In a car roof, the combination of the sheets having joints at their sides and ends and caps for covering the corners of the sheets, part of said caps being perforated for the passage of bolts by which the running board is secured to the car, and the remainder of said caps having downwardly projecting stems by which they are clamped upon the sheets, and all of said caps having grooves to receive the joints of the sheets, substantially as and for the purpose set forth.

### No. 37,853. Fish Trap. (*Nasses à poisson.*)

James F. Allison, Birmingham, Alabama, U. S. A., 26th November, 1891; 5 years.

*Claim.*—1st. In a fish-trap, the combination of a rectangular metallic frame having hollow metallic vertical corner posts, with a bolt passing through top and bottom frames, and hollow corner posts, to secure all together, substantially as and for the purpose hereinbefore set forth. 2nd. In a fish-trap, the combination of a metallic frame having vertical corner posts, glass or transparent doors with metallic frames arranged in pairs on each side and pivoted on the top and bottom frames to the trap, and having springs on the corner posts bearing against the glass doors on the inside, substantially as and for the purpose hereinbefore set forth. 3rd. In combination with a metallic frame having metallic vertical corner posts, with glass or transparent doors pivoted in pairs on each side, the metallic regulators  $L$ ,  $L$ , secured to the frame with screws  $O$ ,  $O$ , to hold them as set, substantially as and for the purpose hereinbefore set forth. 4th. In combination with a metallic frame having metallic vertical corner posts, with glass or transparent doors pivoted in pairs on each side, the glass or transparent or perforated tube  $C$ , to hold the bait, secured with clips or vertical springs, and hinged door closing down on it, together with wire netting or perforated top and bottom, substantially as and for the purpose hereinbefore set forth. 5th. In combination with a metallic frame having metallic vertical corner posts, with glass or transparent doors pivoted in pairs on each side, the rings  $J$ ,  $J$ , secured to corner posts, to secure the wings  $J^1$ ,  $J^1$ , extending outwardly together with a bale or handle  $E$ , and hinged door  $K$ , substantially as and for the purpose hereinbefore set forth.

### No. 37,854. Attachment for Type Writers.

(*Disposition aux clarigraphes.*)

Adelaide H. Woodall, Eckington, District of Columbia, assignee of William S. Romme, Brooklyn, New York, both in U. S. A., 26th November, 1891; 5 years.

*Claim.*—1st. The combination with the rack-bar and its advancing mechanism, of the spring independent of the advancing mechanism for returning the rack-bar, and a power-equalizer for said spring, as set forth. 2nd. The combination with the carriage and its advancing mechanism, of a rack-bar carried by the carriage and independent of the advancing mechanism, a spring of greater power than that which advances the rack-bar and acting in opposition thereto, a holder for said spring which, when actuated to release the spring, actuates the rack-bar to return the carriage to its normal position, and a power regulator for said spring, substantially as specified. 3rd. The combination with the disk,  $E$ , having curved slot, of the bent lever having a lug working in said slot, and a spring on the disk acting on the said lug, substantially as and for the purpose specified. 4th. The combination with the disk having a curved slot, and the bent lever having a segmental portion toothed, and having a lug working in said slot, of the geared hub,  $G^2$ , and its shaft, and a spring on the disk acting on the lug of the lever, as set forth. 5th. The combination, with the shaft,  $D$ , the geared hub,  $G^2$ , loose thereon, and means for actuating said shaft, of the bent lever, the disk,  $E$ , to which it is pivoted, having a curved slot, the said lever having a segmental toothed portion engaging the geared hub, and a spring,  $g^1$ , acting on said segmental portion, substantially as and for the purpose specified. 6th. The combination with the shaft,  $D$ , the disk  $E$ , the geared hub,  $G^2$ , on the shaft, and the bent lever having a toothed segmental portion engaging the geared hub, of the spring acting on a lug projecting from the lever, and a cushion for said segmental portion, as shown and described. 7th. The combination, with the disk, and its actuating devices, of a lug,  $g^2$ , on the rear face of the disk, and a spring,  $G^1$ , behind which the said lug rides as the disk returns to its normal position, as and for the purpose specified. 8th. The combination with the toothed wheel,  $I$ , having an opening  $i$  for the passage of a pawl, of a pawl,  $P$ , hinged to a support on the face of the toothed wheel and having a lateral projection,  $I^2$ , and a spring on the toothed wheel acting on said projection, as set forth.

### No. 37,855. Fire Alarm. (*Avertisseur d'incendie.*)

Charles Dion, Paris, France, and Gustave Adolph Drolet, Montreal, Quebec, Canada, 26th November, 1891; 5 years.

*Résumé.*—Le système d'avertisseur électrique d'incendie caractérisé principalement par la disposition d'un contact intérieur isolé de la masse et de la vis de réglage et agissant en combinaison avec un diaphragme formant couvercle hermétique pour l'appareil, le tout comme décrit cidessus et dans le but spécifique.

### No. 37,856. Bicycle or Tricycle.

(*Bicycle ou tricycle.*)

William Samuel Brooks, William Hyslop, and Hans James Caulfield, all of Toronto, Ontario, Canada, 26th November, 1891; 5 years.

*Claim.*—1st. A spring fixed to the rear saddle frame and extending downwardly and horizontally to a point in front of the L-shaped saddle post, thence curved downwardly below the horizontal portion of the saddle post, thence curved upwardly through a curved seat on the clamp on the L-shaped saddle post, substantially as and for the purpose specified. 2nd. A spring fixed to the rear saddle frame and extending downwardly and horizontally to a point in front of the L-shaped saddle post, thence curved downwardly below the horizontal portion of the saddle post, thence curved upwardly through a curved seat on the clamp on the L-shaped saddle post, in combination with an upwardly curved spring flexibly connected to the front end of the saddle at one end and adjustably connected at its other end to the main spring  $A$ , substantially as and for the purpose specified. 3rd. In a saddle for a bicycle or tricycle, a saddle piece,  $a$ , shaped to rest upon the saddle post  $C$ , and having a curved bearing to receive the curved end of the spring  $A$ , in combination with the clamp piece  $b$ , and set-screw  $d$ , arranged substantially as and for the purpose specified.

### No. 37,857. Velocipede. (*Vélocipède.*)

Noel L. Anthony, Providence, Rhode Island, assignee of Victor Belanger, Worcester, Massachusetts, both in U. S. A., 26th November, 1891; 5 years.

*Claim.*—1st. The combination of a ring and a driving wheel supported therein and adapted to communicate power and motion to said ring to propel the same, substantially as specified. 2nd. The combination of a ring having a gear upon its inner periphery, a driving wheel supported within said ring, and a gear wheel engageable with the gearing of said ring and adapted to receive power and motion from said driving wheel, substantially as described. 3rd. The combination of a ring, a frame supported therein by flanged wheels, which are mounted upon said frame, and which engage the inner periphery of said ring, and a driving wheel mounted on said frame and adapted to communicate power and motion to said ring to propel the same, substantially as shown. 4th. The combination of a ring having a gear upon its inner periphery, a frame supported in said ring by flanged wheels, which are mounted on said frame, and which engage the inner periphery of the ring, a driving wheel and a gear wheel both mounted on said frame, which gear wheel is adapted to receive power and motion from the driving wheel and to communicate the same to the ring by engagement with said gearing, substantially as specified. 5th. The combination, with the ring  $A$ , having the gearing  $b$ , the frame  $B$ , supported in said ring by flanged wheels, as shown, the sprocket wheel  $F$ , having pedals and cranks, the chain  $K$ , the sprocket wheel  $L$ , and the gear wheel  $J$ , connected therewith and meshing with the gearing  $b$ , substantially as set forth. 6th. The combination of the ring  $A$ , having the gearing  $b$ , the frame  $B$ , supported in said ring by flanged wheels, as shown, the saddle  $M$  mounted on the cross-bar  $L$  of the frame  $B$ , the sprocket wheel  $F$  having pedals and cranks, the chain  $K$ , the sprocket wheel  $L$  and the



gear wheel J connected therewith, and meshing with the gearing *b*, substantially as described. 7th. In a one-wheeled vehicle, the combination with the frame thereof, of two arms pivoted to said frame, and wheels mounted on said arms at the outer end thereof, respectively, and each adapted to be raised from the ground or lowered into contact with the ground by the movement of its respective arm, for the purpose of steering the vehicle, substantially as described. 8th. In a velocipede, the combination with the frame thereof, of two arms pivoted to said frame, and wheels mounted on said arms at the outer end thereof, respectively, and adapted to be simultaneously raised from the ground or lowered into contact with the ground by the simultaneous movement of said pivoted arms, substantially as specified. 9th. In a velocipede, the combination with the rotatable ring A, and the frame, B, supported in said ring, of the cross-bar L, the post N, the shaft supported by said post and having the handles O, the link bars P, connected with said shaft, the lever arms Q, pivotally attached to the frame B, and to the link bars P, respectively, and the wheels S, mounted on said arm Q, substantially as specified. 10th. In a velocipede, having one wheel and a frame, the combination of the cross-bar L, the handle T, pivoted on said bar, the links P<sup>1</sup>, connected with said handle, the

lever arms Q pivotally attached to said frame and to the links P<sup>1</sup>, respectively, the wheels S, mounted on said arms Q, the bolt I, and the slotted arc U, substantially as specified. 11th. In a velocipede having one wheel and a frame, the combination of the lever arms Q, having the wheel S at the lower end thereof, and the spring R, having its bearings on the upper end of the lever arm Q, and on a boss of the frame, substantially as described. 12th. The improved velocipede herein described, consisting of the ring A, having the tire *a*, and gearing *b*, the frame B having the arms C, C<sup>1</sup>, C<sup>11</sup>, the flanged wheels D, E, the sprocket wheels F, I, the chain, K, the flanged gear wheel J, the cranks G, and pedals H, the cross-bar L, the saddle M, the springs R, the wheels S, all arranged and operated, substantially as specified. 13th. The improved interchangeable monocyde and tricycle herein described, consisting of the ring A, having the tire *a*, and gearing *b*, the frame B having the arms C, C<sup>1</sup>, C<sup>11</sup>, the flanged wheels D, E, the sprocket wheels, F, I, the chain, K, the flanged gear wheel J, the cranks G and pedals H, the cross bar L, the saddle M, the handles T, the links, P<sup>1</sup>, the pivoted arms Q, the wheels S, the bolt I, and the slotted arc U, all arranged and operating, substantially as specified.

*CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO  
THE FOLLOWING PATENTS*

2355. HURBERT ROOT IVES, 3rd five years of No. 13,842, from the 16th day of December, 1891. Improvements on Egg Beaters, 3rd November, 1891.
2356. ROBERT KILGOUR and JOSEPH KILGOUR, 2nd five years of No. 25,335, from the 11th day of November, 1891. Improvements on the Manufacture of Paper Bags and on Machinery therefor, 3rd November, 1891.
2357. JESSE OLDFIELD WISNER and WAREHAM SHELDON WISNER, 3rd five years of No. 13,806, from the 5th day of December, 1891. Improvements in Spring Hoes, 3rd November, 1891.
2358. THE COULTHARD SCOTT CO., (assignees), 3rd five years of No. 13,712, from the 17th day of November, 1891. Improvements in Iron Harrows, 6th November, 1891.
2359. JOSEPH SARGENT KEMP, 2nd five years of No. 25,313, from the 10th day of November, 1891. Improvements in Wheeled Stump and Stone Lifters and Conveyors, 7th November, 1891.
2360. ANDREW LEITCH and MICHAEL TURNBULL, 3rd five years of No. 13,783, from the 2nd day of December, 1891. Improvements on Hoisting Machines, 9th November, 1891.
2361. WARREN TODD KELLOGG, 2nd five years of No. 25,590, from the 20th day of December, 1891. Improvements in Sash Pulleys, 10th November, 1891.
2362. CHRISTOPHER JOSEPH GRELLNER, 2nd five years of No. 25,337, from the 11th day of November, 1891. Improvements in Hammers, 10th November, 1891.
2363. D. F. JONES MANUFACTURING COMPANY, (assignees), 2nd five years of No. 25,422, from the 26th day of November, 1891. Improvements in the Method of and means for making Shovels, Spades and Scoops, 11th November, 1891.
2364. D. F. JONES MANUFACTURING COMPANY, (assignees), 2nd five years of No. 25,423, from the 26th day of November, 1891. Improvements in Blanks for Shovels, Spades and Scoops, 11th November, 1891.
2365. D. F. JONES MANUFACTURING COMPANY, (assignees), 2nd five years of No. 25,427, from the 26th day of November, 1891. Improvements in Blanks for Plain Back Shovels, Spades and Scoops, 11th November, 1891.
2366. D. F. JONES MANUFACTURING COMPANY, (assignees), 2nd five years of No. 25,428, from the 26th day of November, 1891. Improvements in Plants for Manufacturing Shovels, Spades and Scoops, 11th November, 1891.
2367. D. F. JONES MANUFACTURING COMPANY, (assignees), 2nd five years of No. 25,583, from the 18th day of December, 1891. Improvements on Machines for Cutting Blanks for Shovels, Spades and Scoops, 11th November, 1891.
2368. THOMAS GARE, 2nd five years of No. 27,240, from the 23rd day of July, 1892. Improvements in Apparatus and Tools for Finishing Boots and other Coverings for the Feet, also Applicable for some other purposes, such as Shaping, Polishing or Finishing Metal or Wood, 13th November, 1891.
2369. JOHN R. WHITNEY, 2nd five years of No. 25,434, from the 13th day of November, 1891. Improvements on Chills for Casting Car Wheels, 16th November, 1891.
2370. JOHN R. WHITNEY, 2nd five years of No. 25,476, from the 4th day of December, 1891. Improvements on Processes and Moulds for Casting, 16th November, 1891.
2371. WILLIAM MANN, 2nd and 3rd five years of No. 26,260, from the 16th day of March, 1892. Improvements in Furnaces for Cremation, 18th November, 1891.
2372. ADAMANT MANUFACTURING COMPANY, (assignees), 2nd five years of No. 25,446, from the 30th day of November, 1891. Improvements in Composition or Building Material for Architectural Purposes, 19th November, 1891.
2373. LYMAN BICKFORD and HELEN M. KIRKPATRICK, 2nd five years of No. 25,523, from the 7th day of December, 1891. Improvements in Changeable Speed Gearing, 25th November, 1891.
2374. GEORGE M. STANCHFIELD, 2nd five years of No. 25,493, from the 6th day of December, 1891. Improvements in Inkoleum, a Composition of Matter to be used for the Softening of Printer's Ink, 25th November, 1891.
2375. JOHN WOODWARD and ROBERT ANDERSON, 2nd five years of No. 25,551, from the 13th day of December, 1891. Improvements in Pumps, 25th November, 1891.
2376. WILLIAM WILMINGTON, 2nd five years of No. 25,745, from the 15th day of January, 1892. Improvements in Methods of Casting Car Wheels, 26th November, 1891.
2377. CHARLES FREDERICK FOGG, 2nd five years of No. 25,472, from the 3rd day of December, 1891. Improvements in Heating and Ventilating Systems, 30th November, 1891.
2378. OTTMAR MERGENTHALER, 2nd five years of No. 26,022, from the 17th day of February, 1892. Improvements in the Method of and Means for Justifying Matrices, Types and Dies, when Assembled or Composed in Lines, 30th November, 1891.

## NOVEMBER LIST OF TRADE MARKS.

Registered at the Department of Agriculture—Copyright and Trade Mark Branch.

4187. THE SPENCER OPTICAL MANUFACTURING COMPANY, of New York, N. Y., U.S.A. Opera, Field, and Marine Glasses, Telescopes, Magnifiers, Readers, Eye Glasses, Spectacles, Oculists Trial Cases and Trial Frames, and other Optical Goods, 2nd November, 1891.
4188. LEON LA RUE, Jr., of Montreal, Que. Cut Tobacco, 2nd November, 1891.
4189. THE SINGER MANUFACTURING CO., of New York, N.Y., U.S.A. Sewing Machines, Attachments and parts thereof, 3rd November, 1891.
4190. REINHART & CO., of Toronto, Ont. Beer, 9th November, 1891.
4191. RECKITT & SONS, L'd. of Hull and London, England. Laundry Articles, 16th November, 1891.
4192. J. F. LEFEBVRE, of Montreal, Que. Cigars, 20th November, 1891.
4193. HENRY ARCHER EKERS, of Montreal, Que. General Trade Mark, 23rd November, 1891.
4194. } SOUTHALL BROTHERS & BARCLAY, of Birmingham, England. Sanitary Towels.  
4195. } Suspenders.  
4196. } Violet Powder.  
24th November, 1891.
4197. SHIRK & SNYDER, of Baden, Ont. Flour, 26th November, 1891.
4198. BORNE, SCRYMSER & CO., of New York, N.Y., U.S.A. Illuminating Oil, 30th November, 1891.
4199. WILLIAM HENRY ASHTON, of Chicago, Illinois, U.S.A. Medicine, 30th November, 1891.

# COPYRIGHTS.

Entered during the month of November at the Department of Agriculture—Copyright and  
Trade Mark Branch.

6159. KAMAME ORIENTAL GUIDE TO HEALTH. Vol. 127. No. 7557. Robert Owens, Windsor, Ont., 2nd November, 1891.
6160. YARMOUTH. Nova Scotia, 1829.  
6161. do do 1858. (Marked A)  
6162. do do 1858. (Marked B)  
(Photographs.) J. M. Lawson, Yarmouth, N.S., 3rd November, 1891.
6163. COLUMBINE. (Scène de Theatre.) Sketch for the Pianoforte, by Michael Watson.
6164. THE NIGHTINGALE AND ZEPHYR. Morceau de Concert pour Piano, par Boyton Smith.  
The Anglo-Canadian Music Publishers' Association, L'd., London, England, 4th November, 1891.
6165. THE SILENT REMINDER, 1891. (Chart.) Miss Jessie Gourlay, London, Ont., 4th November, 1891.
6166. THE CANADIAN ALBUM: Men of Canada, or Success by Example. Part 6. Vol. I.  
Edited by Rev. Wm. Cochrane, D.D.
6167. THE CANADIAN ALBUM: Men of Canada, or Success by Example. Part 7. Vol. I.  
Edited by Rev. Wm. Cochrane, D.D.  
Thomas S. Linscott, Brantford, Ont., 5th November, 1891.
6168. ILLUSTRATED HALIFAX. Its Civil, Military and Naval History. by Norbert Metzler.  
John McConniff, Montreal, Que., 6th November, 1891.
6169. THE VOYAGE OF LIFE. Words and Music by Capt. Werry. Arranged by Comrade F. L. H. Sims.  
Luther Werry and F. L. H. Sims, Toronto, Ont., 7th November, 1891.
6170. THE OUTWARD AND VISIBLE SIGN. A new and attractive method of teaching religious truths, and especially the Church Catechism, by the Rev. David Johnstone Caswell, B.D., Ph. D., Brantford, Ont., 7th November, 1891.
6171. CASTOROLOGIA. (Pamphlet prospectus.) Horace T. Martin, Montreal, Que., 9th November, 1891.
6172. BURLEY'S MAILING LIST FOR THE GARDEN AND HEART OF MANITOBA. Second Revised Edition, 1892. Charles Samuel Birch Burley, Portage-la-Prairie, Man., 9th November, 1891.
6173. ANTICIPATION WALTZES, for Piano, by Maud Snarr.
6174. DINSMORE. Galop for Brass Band, by Harry Walker.  
Whaley, Royce & Co., Toronto, Ont., 11th November, 1891.
6175. CODE DE PROCEDURE CIVILE DU BAS CANADA, ANNOTÉ, par P. B. Mignault, Avocat.  
Jos. M. Valois, Montreal, Que., 14th November, 1891.
6176. TRAITÉ PRATIQUE DE MATIERE MEDICALE DE THERAPEUTIQUE ET DE TOXICOLOGIE, par Hugues Evariste Desrosiers, M.D., &c.  
Montreal, Qué., 14 Novembre, 1891.
6177. HOME STUDY LEAFLET. Rev. Thomas Francis Fotheringham, St. John, N.B. 16th November, 1891.
6178. THE LAW AND PRACTICE AS TO PROBATE AND ADMINISTRATION IN THE PROVINCE OF NEW BRUNSWICK, &c., together with a Collection of Forms, by C. A. Steeves, Barrister-at-law.  
The Carswell Co., L'd., Toronto, Ont., 17th November, 1891.
6179. THE LIFE OF CHRIST. (Photo.) George Tomkins.  
Toronto, Ont., 17th November, 1891.
6180. WHO SHALL SERVE. A Story for the Times, by Annie S. Swan. Wm. Briggs, Toronto, Ont., 18th November, 1891.
6181. THE HEART OF A MAID, by Beatrice Kipling.
6182. FOR THE DEFENCE, by B. L. Farjeon.
6183. THERE IS NO DEATH, by Florence Marryatt.  
John Lovell & Son, Montreal, Que., 18th November, 1891.
6184. SUPPLEMENT NO. 3, to SHARP'S CIVIL CODE OF LOWER CANADA, from 1st October, 1890 to 1st October 1891, by William Prescott Sharp, B.C.L.  
Montreal, Que., 19th November, 1891.
6185. THE CANADIAN LAW TIMES. Edited by E. Douglas Armour, of Osgoode Hall, Barrister-at-law. Vol. IX.  
Carswell & Co., Toronto, Ont., 20th November, 1891.
6186. THE CENTURY CALENDAR. Being from the Present Date till the close of the Year 2000.  
Archie Bremner and Walter J. Blackburn, London, Ont., 20th November, 1891.

6187. THE BON TON LANCERS. On Popular Melodies. Arranged by Edwin Gledhill. Willimott Henry Billing, Toronto, Ont., 20th November, 1891.
6188. DUEL SCENE. (Photo.) Edwin R. Parkhurst, Toronto, Ont., 21st November, 1891.
6189. DOMINION ILLUSTRATED SPECIAL NUMBER, DEVOTED TO MONTREAL-THE COMMERCIAL METROPOLIS OF THE DOMINION (1891.) The Sabiston Lithographing and Publishing Co. Montreal, Que., 21st November, 1891.
6190. DOWN BY THE SEA. Song. Words and Music by Gerald Lane. W. Morley & Co., London, England, 23rd November, 1891.
6191. SATISFACTION. Photograph representing a duel scene. Edwin R. Parkhurst, Toronto, Ont., 24th November, 1891.
6192. MAP OF THE TOWN OF CALGARY, Alberta, N.W.T. Compiled by Jephson & Wheeler. William Thomson Ramsay, Hamilton, Ont., and Robert Hiram Moody, Calgary, N.W.T., 24th November, 1891.
6193. THE LODGE CALENDAR CHART, 1892. William Jaques, Jarvis, Ont., 24th November, 1891.
6194. RAPPORTS JUDICIAIRES REVISÉS DE LA PROVINCE DE QUEBEC, par l'Honorable M. Mathieu. Tome I. W. J. Wilson, Montréal, Qué., 25 Novembre, 1891.
6195. ST. CLAIR TUNNEL. Marked A }  
6196. do do B } Photographs.  
John S. Thom, Sarnia, Ont., 26th November, 1891.
6197. ALBUM DU CHANTEUR. Ernest Lavigne, Montréal, Qué., 30 Novembre, 1891.
6198. MY FRIEND. Words and Music by Capt. J. C. Ludgate, Cornwall, Ont., 30th November, 1891.
6199. TRÉSOR DES AMES PIEUSES; ou, Divers Moyens d'Atteindre la Perfection Chretienne, par une Prêtre du Diocèse de Montréal. Nouvelle Edition.
6200. MANUEL DE SAINTE ANNE. Règlement et Prières à l'usage des Dames de la Congregation de Sainte Anne. Nouvelle Edition. C. O. Beauchemin & Fils, Montréal, Qué., 30 Novembre, 1891.





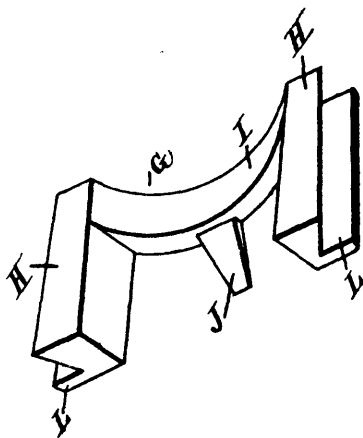
THE  
CANADIAN PATENT OFFICE RECORD

ILLUSTRATIONS.

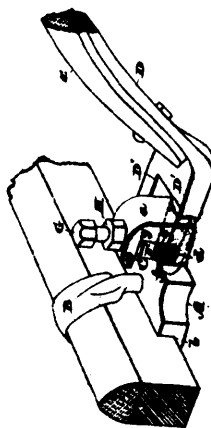
Vol. XIX.

NOVEMBER, 1891.

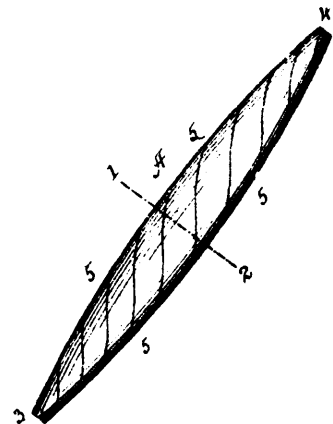
No. 11



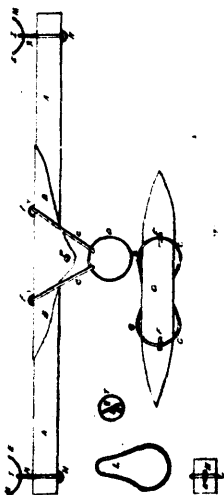
37709 Kahn's Device for Moulding Leg Sockets for Stoves.



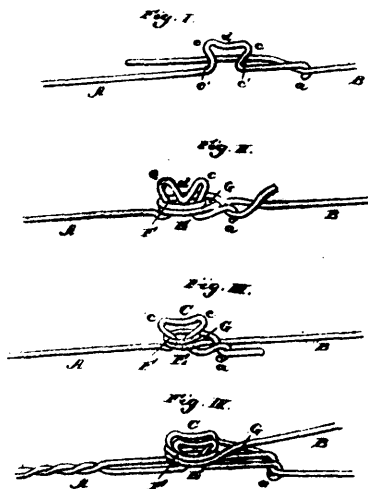
37710 Mirfield's Thill Coupling.



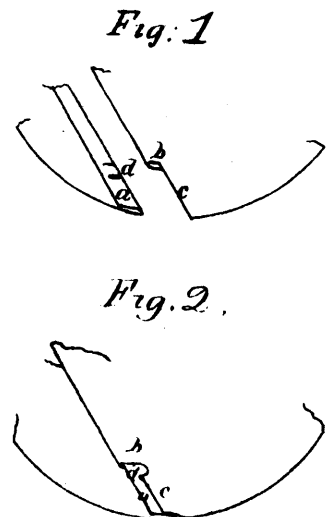
37711 Moonells and Lichtenstein's Cigar.



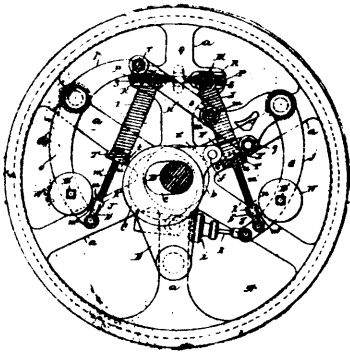
37712 Oke's Neck Yoke.



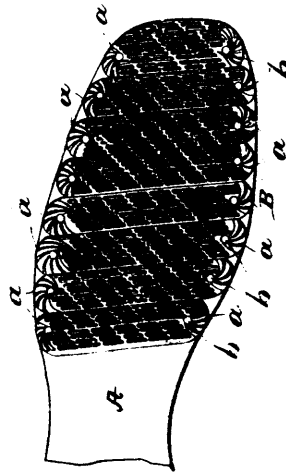
37713 Coon's Wire Bale Tie.



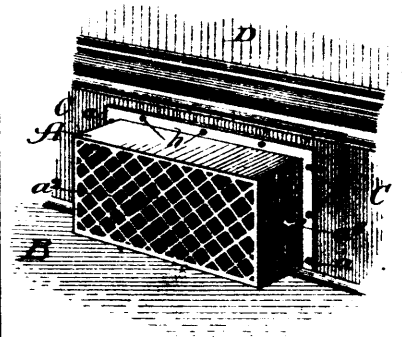
37714 Huffman's Stove Pipe.



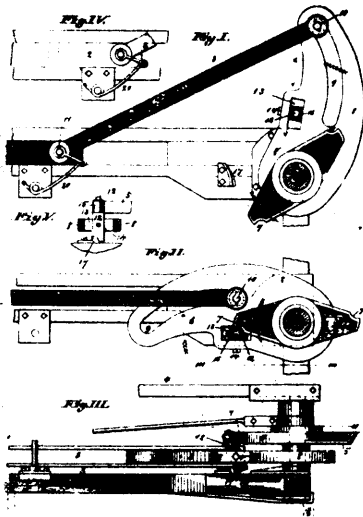
37715 Longenecker's Steam Engine Governor.



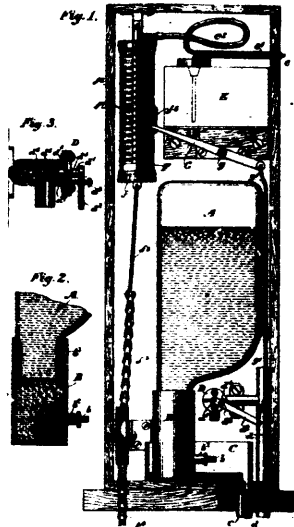
37716 Lithgow's Metallic Sole and Heel Plate for Boots and Shoes.



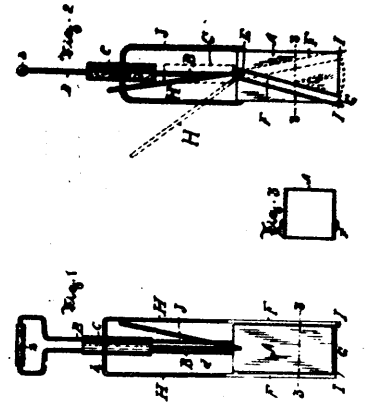
37717 Reese's Hot Air Register.



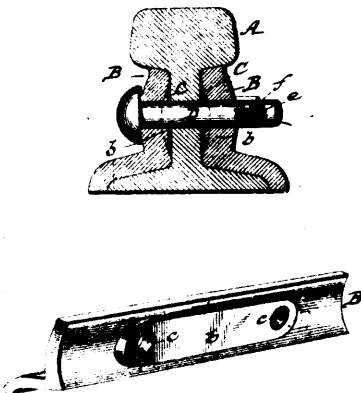
37718 Gehrt's Baling Press.



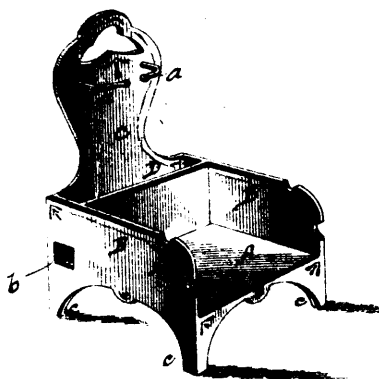
37719 Mitchell's Disinfecting Apparatus.



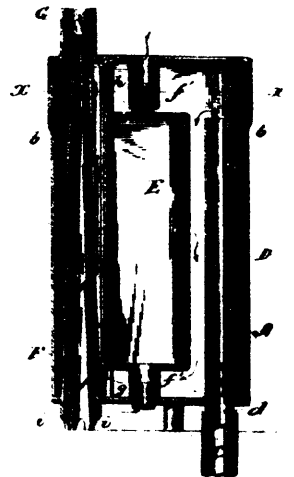
37720 Chenier's Butter Cutter.



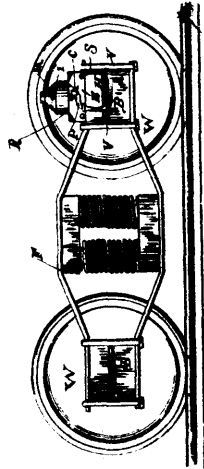
37721 Wiley's Railway Joint.



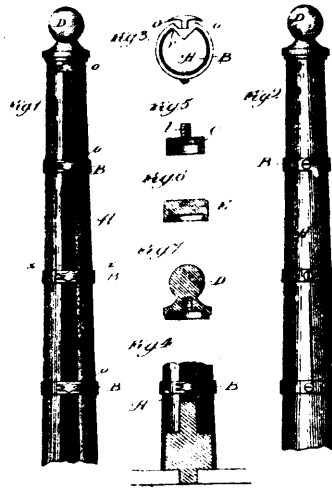
37722 Pierce's Stand for Fire Irons.



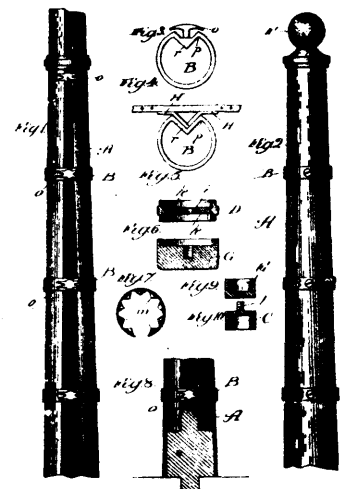
37723 Pugh's Heating Drum.



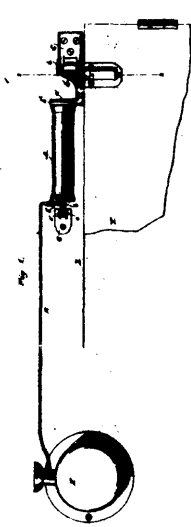
37724 Woodmancy's Oil Cup Attachment for Journal Boxes.



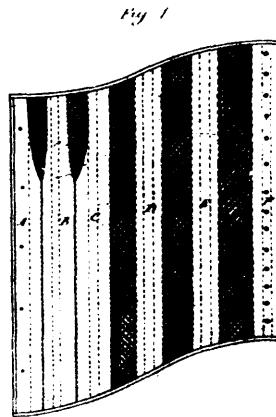
37725 Thorp's Metal Fence Post.



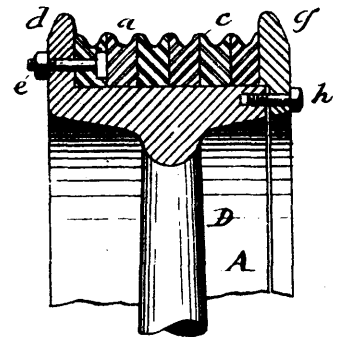
37726 Thorp's Metal Post.



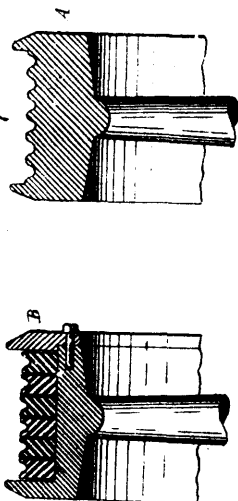
37727 Mitchell's Apparatus for Operating Atomizers.



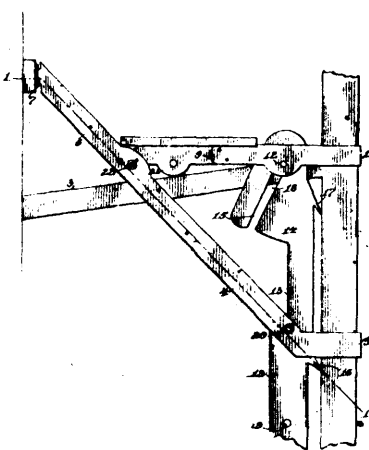
37728 Crotty's Corset.



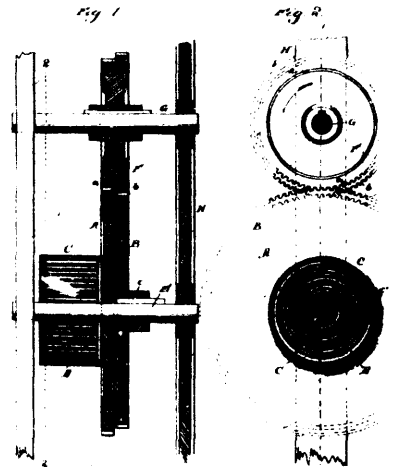
37729 Walker's Drum for Cable Railways.



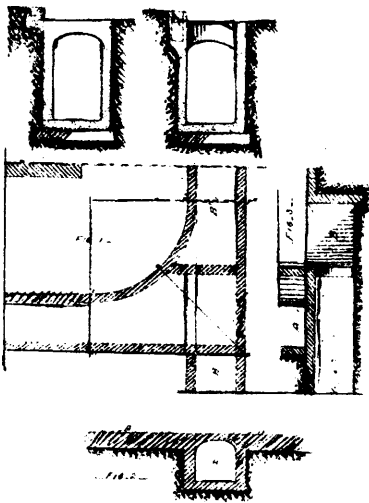
37730 Walker's Drum for Cable Railways.



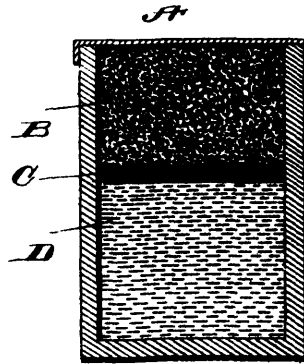
37731 Van Vliet's Scaffold Bracket.



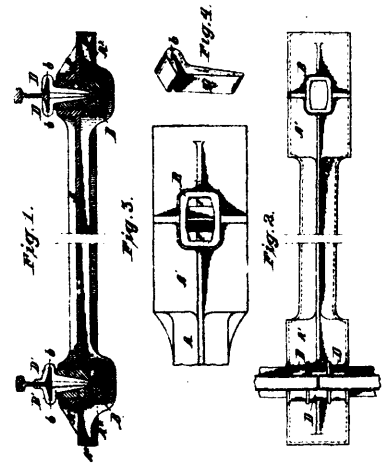
37752 Wortmann's Mechanical Movement.



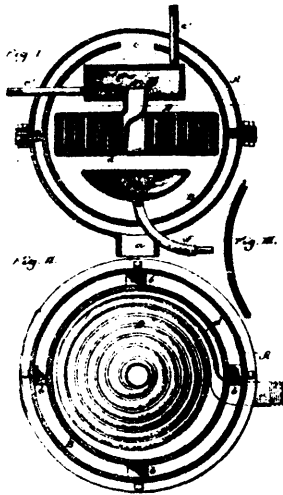
37733 Dansereau's Electric Wire Subway.



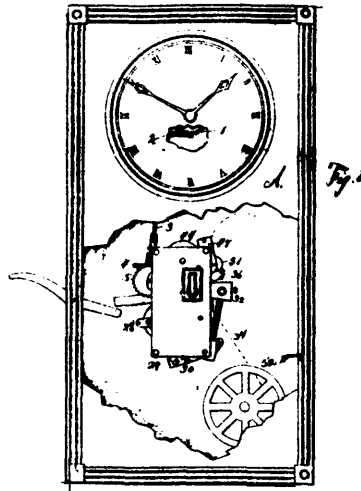
37734 Clotworthy's Art of Packing Baking Powder.



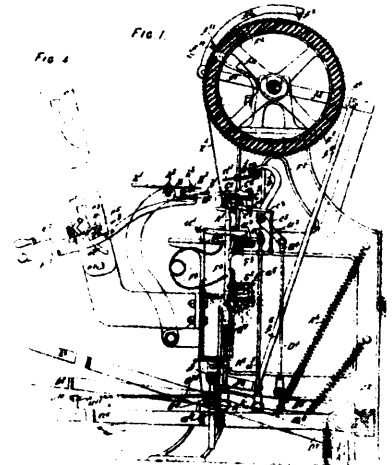
37736 Blandwood's Railroad Cross Tie.



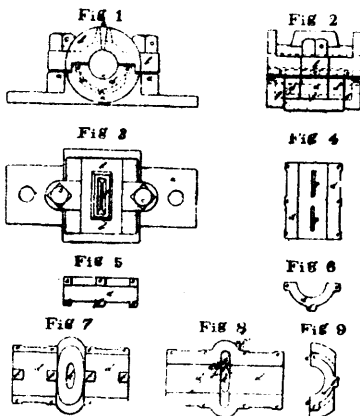
37737 Reynolds' Flash Steam Generator.



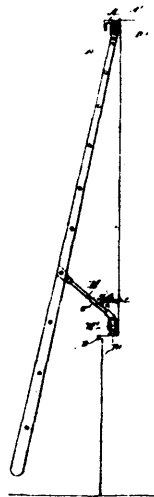
37738 Bundy's Time Recorder.



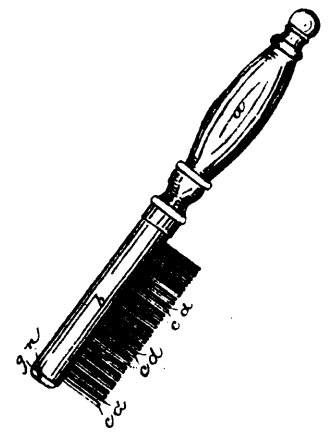
37739 Knox's Looms for Weaving Nets, etc.



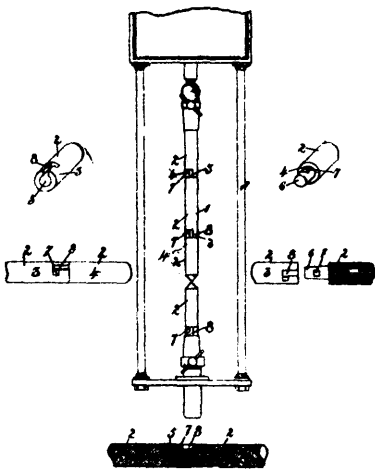
37740 Stafford's Bearings for Journals.



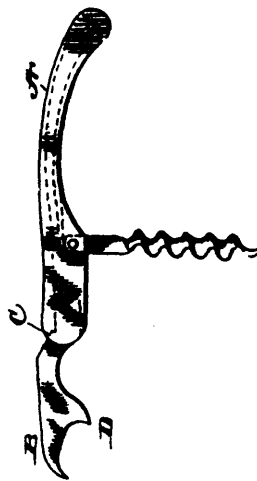
37741 Sincennes' Safety Rolling Step Ladder.



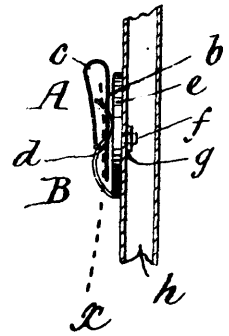
37742 Riley's Electric Comb.



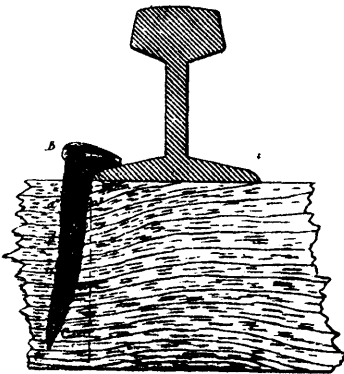
37743 Irwin's Carbon for Arc Lamps.



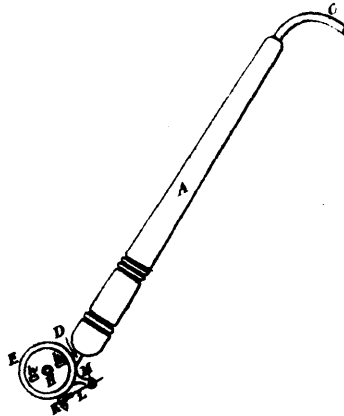
37744 Davis' Cork Screw.



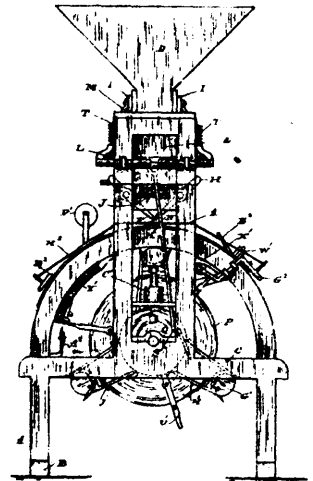
37745 Ledoux's Pocket Attachment.



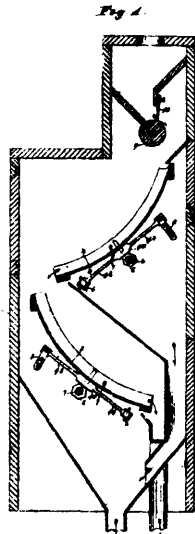
37746 Hill's Railway Spike.



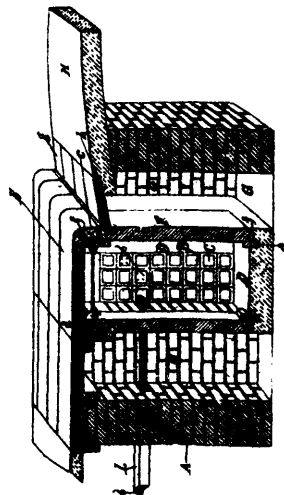
37747 Standing's Apparatus for Producing Perforated Stencils.



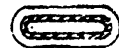
37748 Sissons and Mayo's Fagot Making Machine.



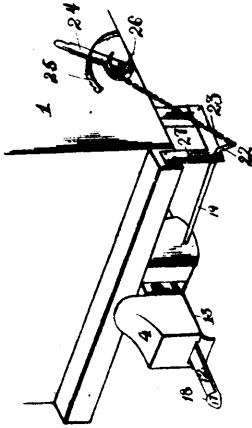
37749 Noble's Gravity Scalpers, Graders and Bolters.



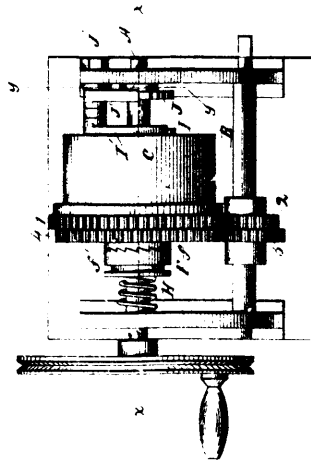
37750 Readman's Subway for Electric Wires.



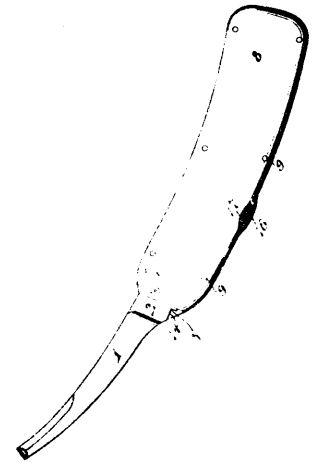
37751 Sutherland and Herbert's Eyelet.



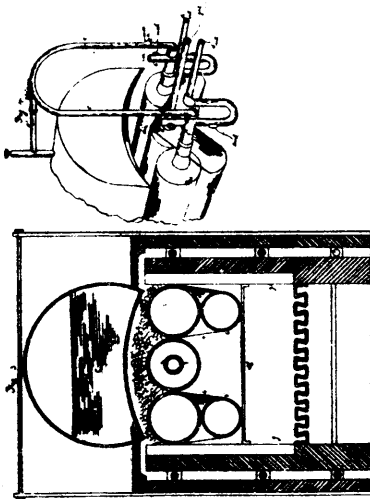
37752 Patten and Webber's Car Coupler



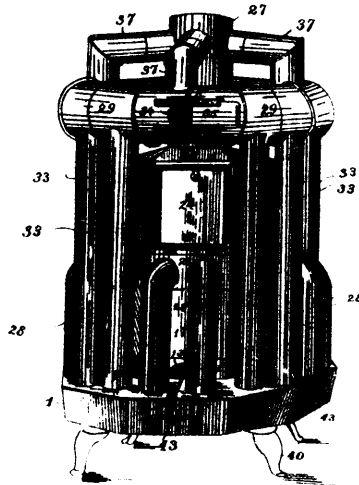
37753 Wortmann's Mechanical Movement.



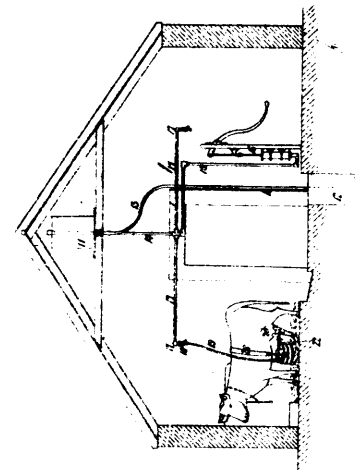
37754 Nielsen's Knife.



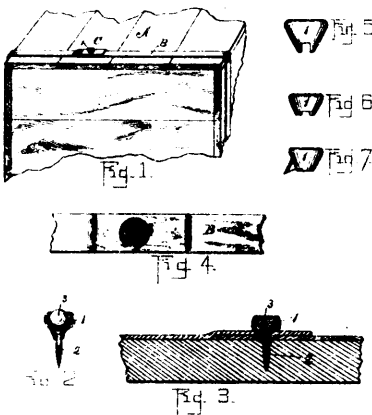
37755 Wilson's Apparatus for Manufacturing Gas.



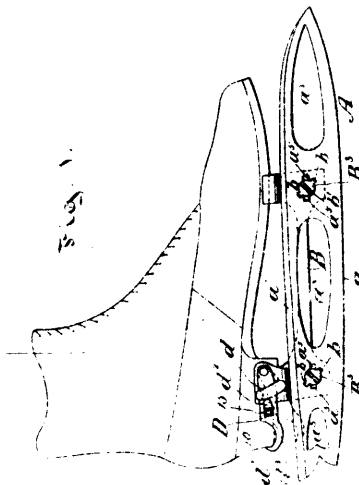
37756 Sweetland's Hot Air Furnace.



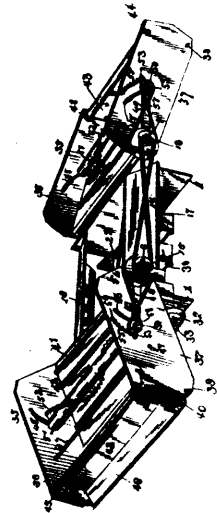
37757 Murchland's Apparatus for Milking Cows.



37758 Phelps' Seal.

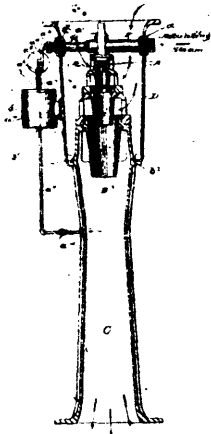


37759 Wierda's Skate.

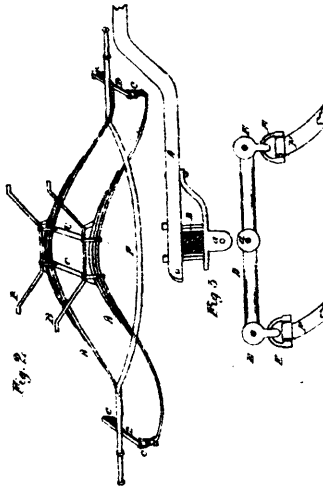


37760 Calderwood and Le Sueur's Feeder and Band Cutter for Threshing Machines.

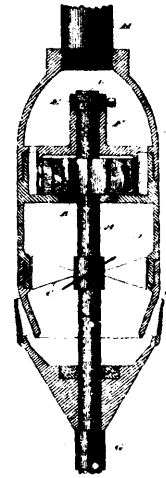




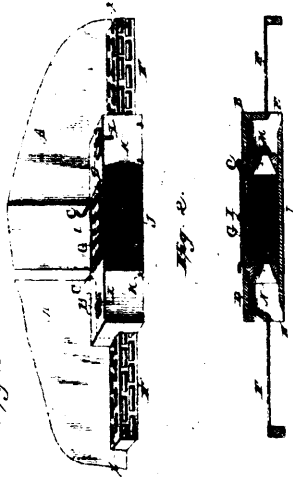
37761 Schutte's Jet Apparatus.



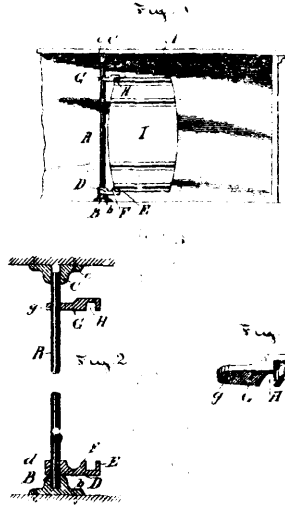
37762 Vandyke's Road Cart.



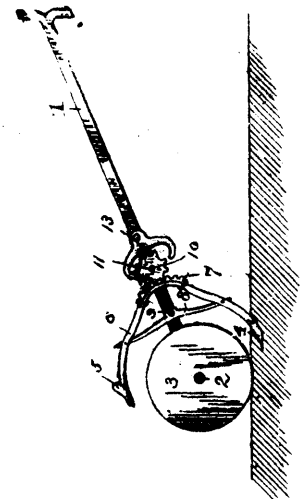
37763 Canan's Machine for Boring Soil Under Water.



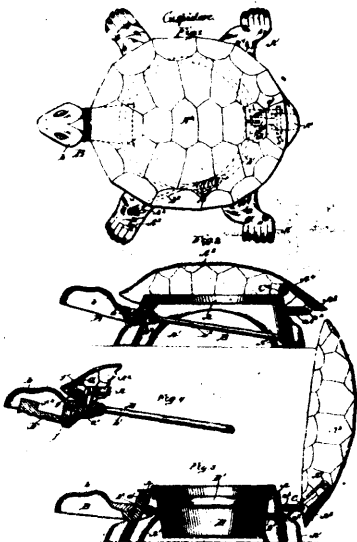
37764 Petrie's Bee Swarmer.



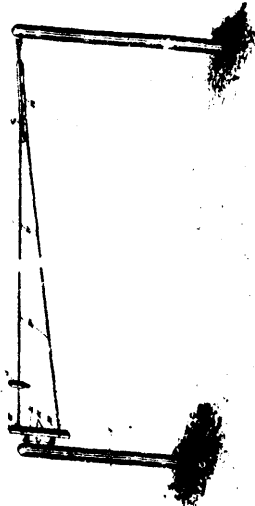
37765 Laurin's Barrel Stand.



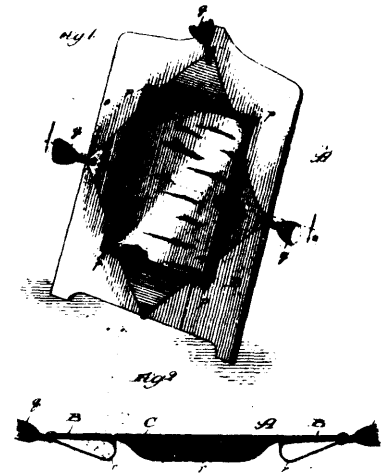
37766 McKay's Plow.



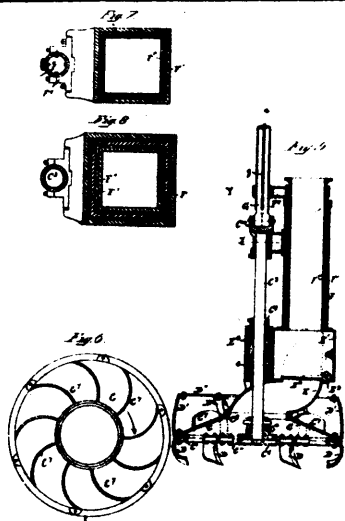
37767 Golden's Cuspidor.



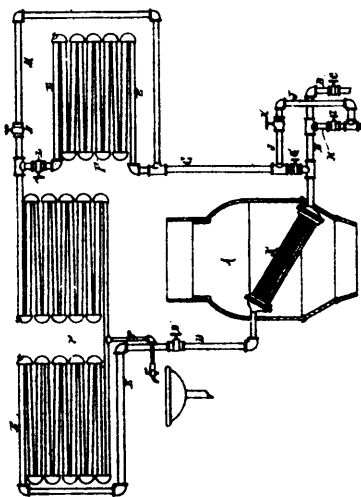
37768 Hoskins' Clothes Line.



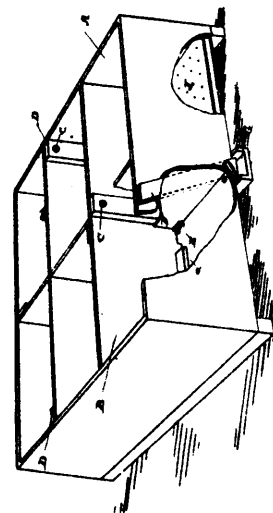
37769 McBride's Picture Frame.



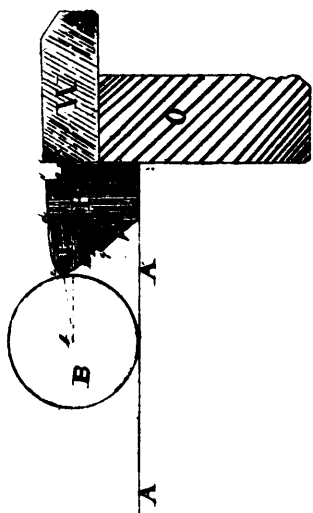
37770 Brown's Hydraulic Dredging Apparatus.



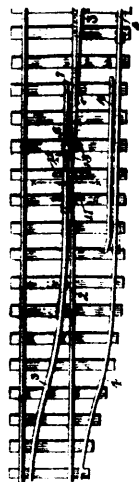
37771 Bottsford's System of Hot Water Circulation.



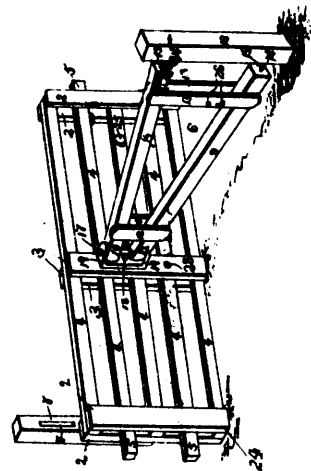
37772 Tanner's Leather Feeder.



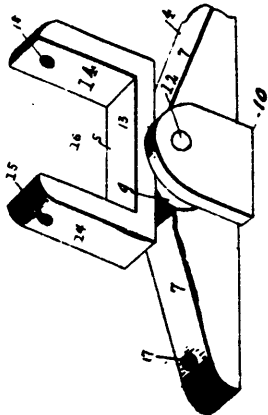
37773 Costigan's Rubber Cushion for Billiard Tables.



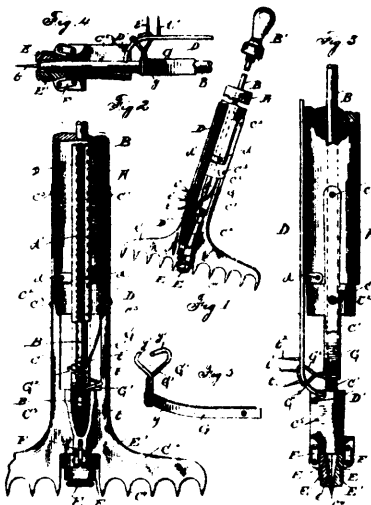
37774 Grubb's Frog.



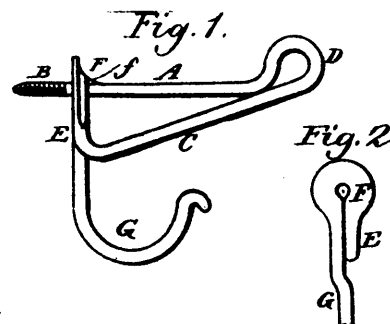
37775 Hathaway's Gate.



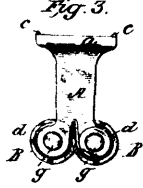
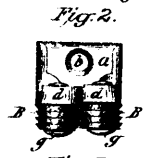
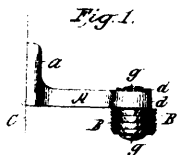
37776 McMann and Rippon's Bolster Bearing for Sleds.



37777 Denison's Carpet Stretcher and Tack Driver.

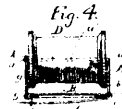
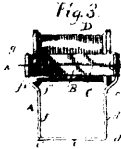
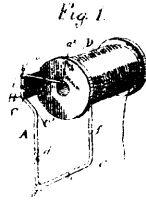


37778 Thurston's Wire Suspension Hook.



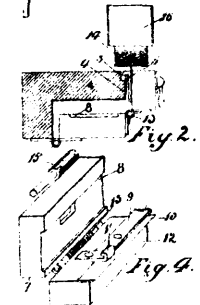
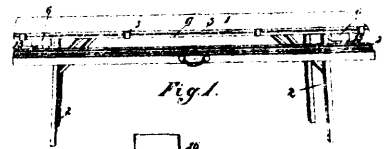
37779

Geer's Knife Sharpener.



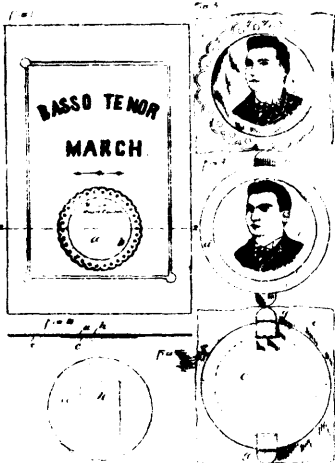
37780

Knight's Spool Holder.



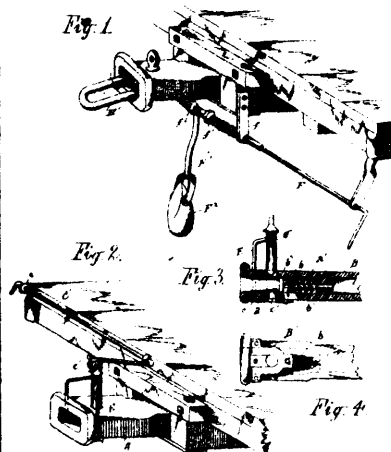
37781

Berney's Machine for Cutting Paper, etc.



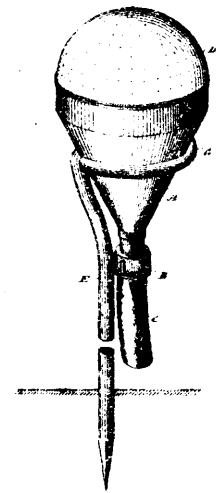
37782

Pidgin's Sheet Music.



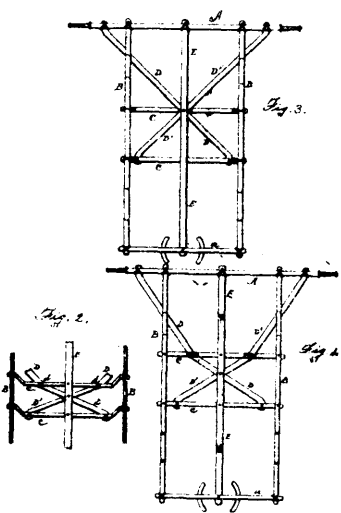
37783

Marshall's Car Coupler.



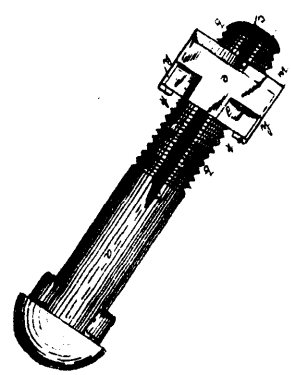
37784

Campbell and Jillard's Lawn Sprinkler.



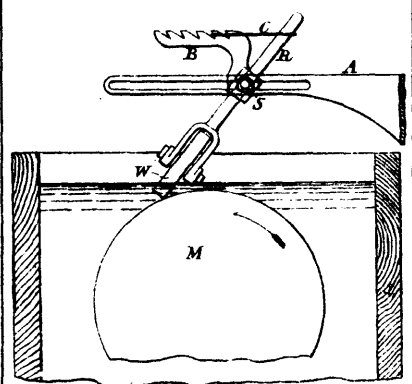
37785

Pike's Vehicle Gear.



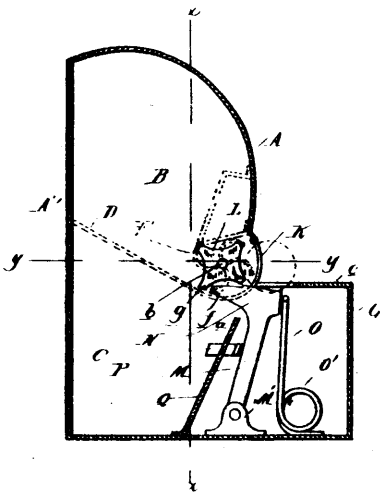
37786

Thompson's Nut Lock.

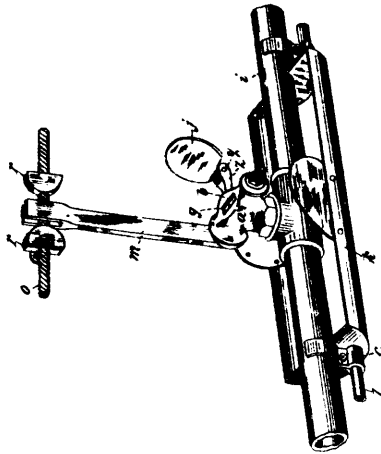


37787

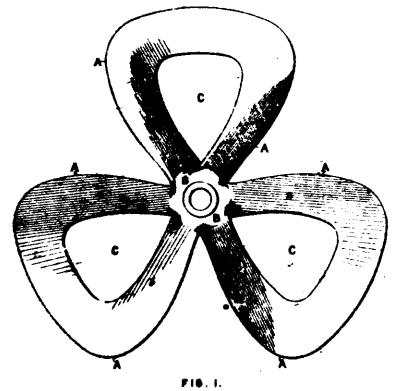
Elinore's Apparatus for the Manufacture of Metallic Articles by Electrolysis.



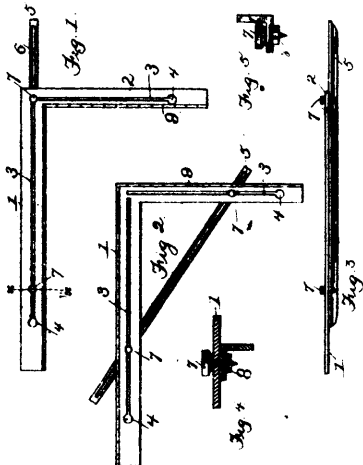
37788 Latimer's Automatic Merchandise Seller.



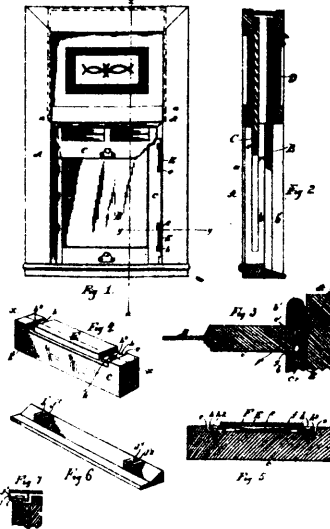
37790 Wallace's Air Moistening Device.



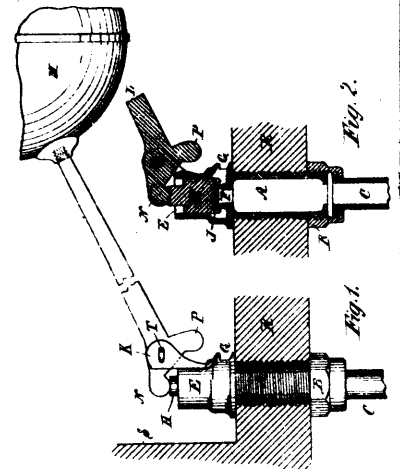
37791 Myrs and Wells' Screw Propeller.



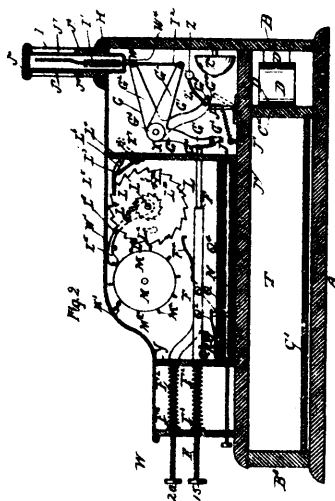
37792 French and Smith's Square.



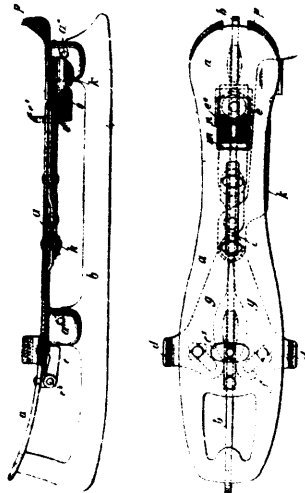
37793 Wilkinson's Sash Holder and Tightener.



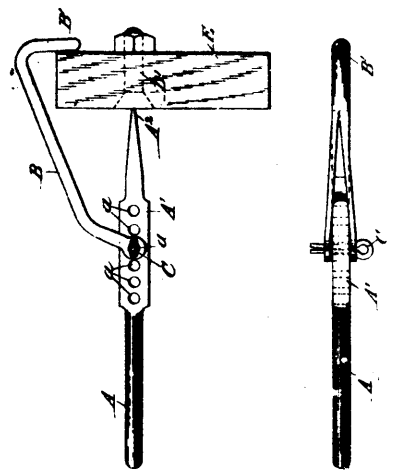
37794 McShane's Ball Cock.



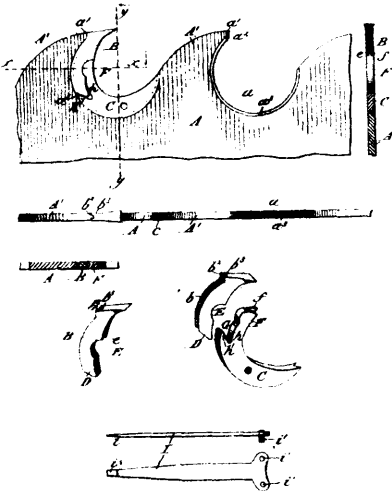
37795 Pierce and King's Cash Register.



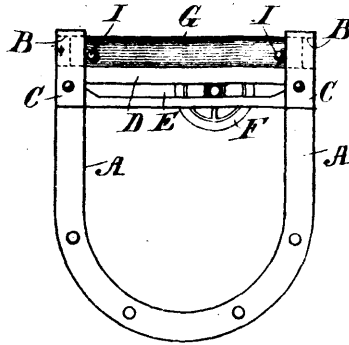
37797 Weber's Skate.



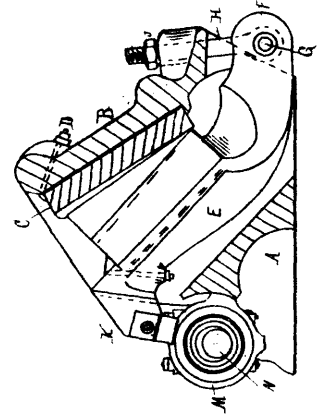
37798 Reynolds' Combination Tool.



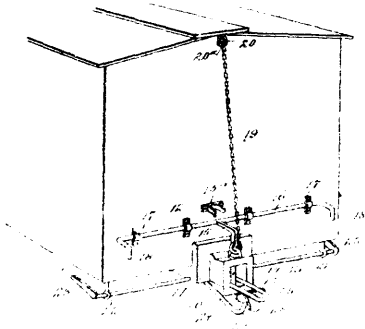
37799 Brooke's Saw Teeth.



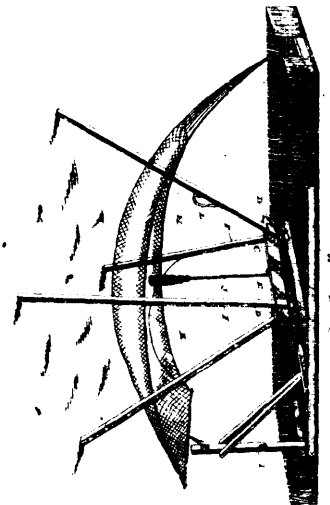
37830 Moore's Door Hanger.



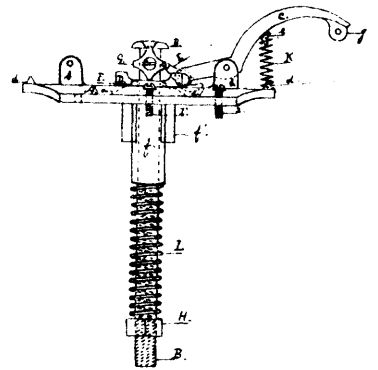
37861 Morris' Ore Crusher.



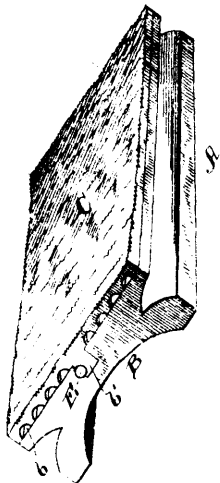
37832 Bugg and Louis' Car Coupler.



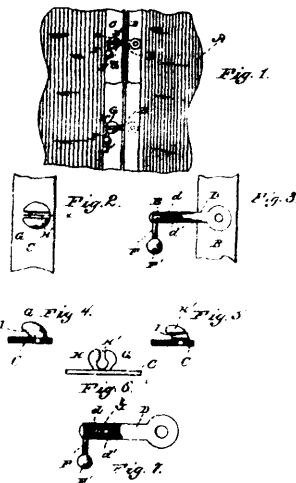
37833 Miller's Hammock Support.



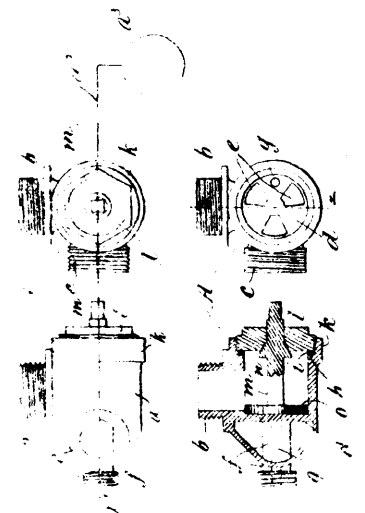
37804 Drake's Machine for Setting Saws.



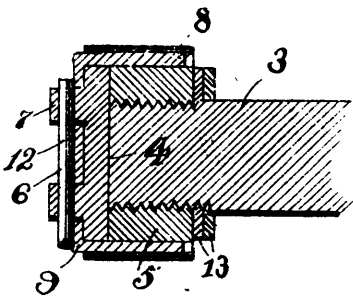
37805 Harris' Stereotype Plates and Base with Locking Device.



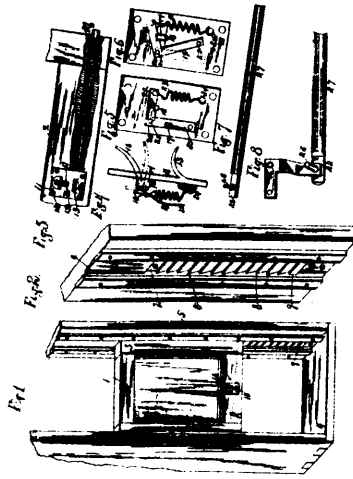
37806 Bernstein's Fastening for Shoes, etc.



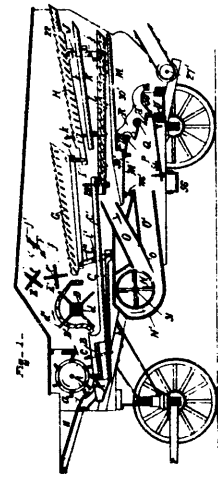
37808 Decarie's Flushing Apparatus and Stop Cock.



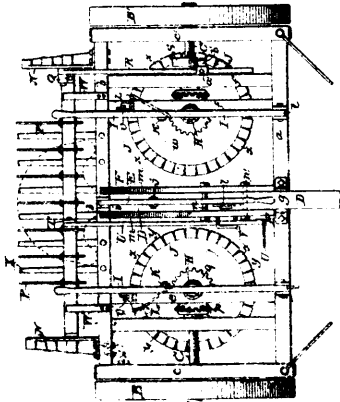
37809 Deal's Nut Lock.



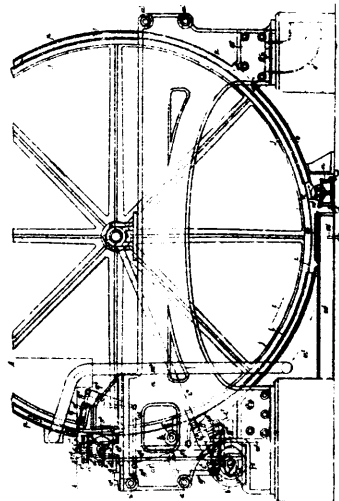
37810 Knapp's Automatic Sash Lift and Lock.



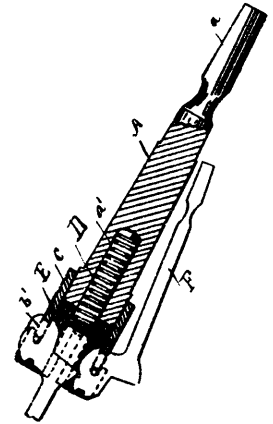
37811 Landis' Threshing Machine.



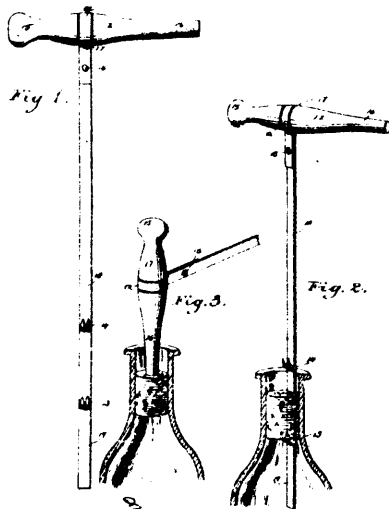
37812 Clement's Pea Harvester.



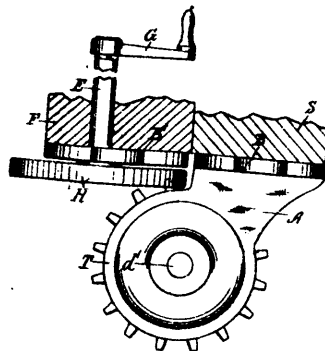
37814 Bell's Machine for Manufacturing Matches.



37815 Buck and Konigslow's Combination Tool and Holder.



37816 Torney's Cork Extractor.

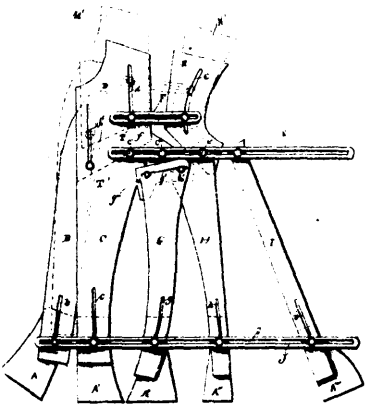


37817 Hunt's Adjusting and Locking Device for Shutters.

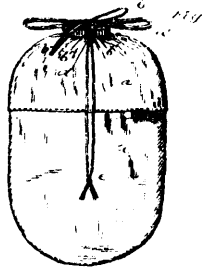


37818 Patten's Self Oiling Axle Bearings.

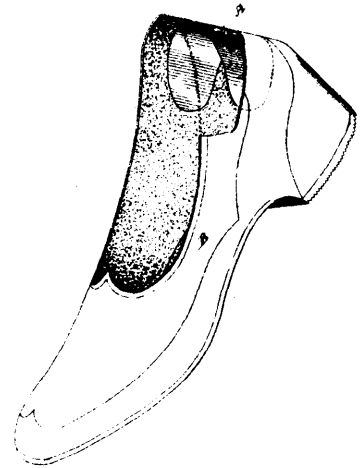




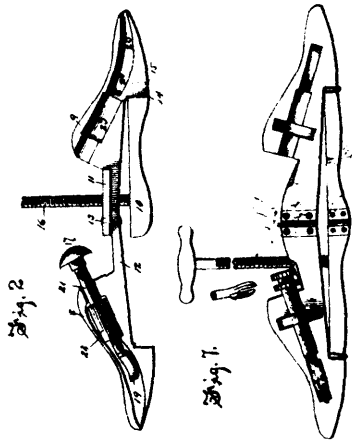
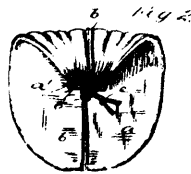
37819 Curry's Pattern for Drafting Garments.



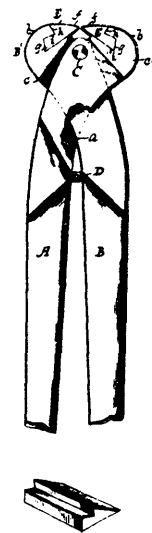
37820 Cussen's Tobacco Pouch.



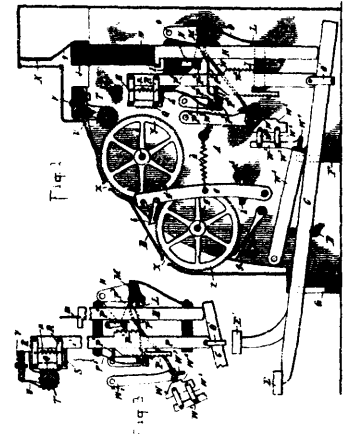
37821 Nell's Rubber.



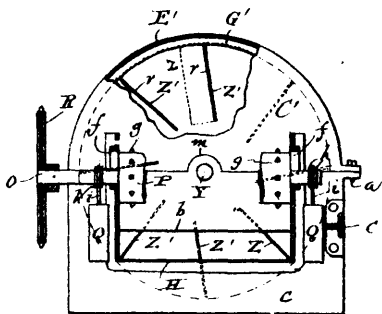
37822 Cheetham's Boot and Shoe Stretcher.



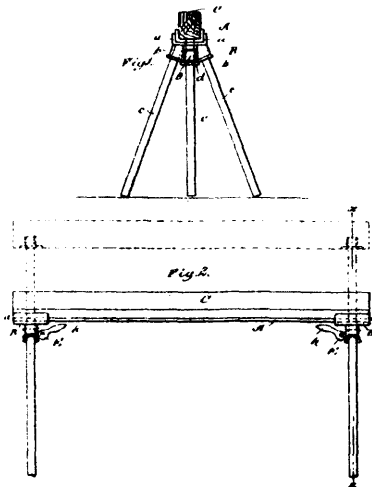
37823 Root's Cutting Nippers.



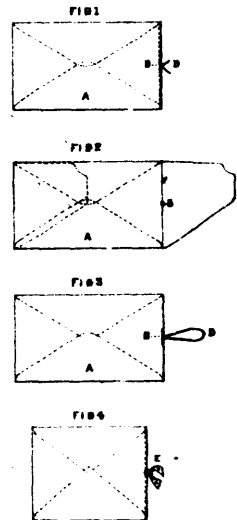
37824 Latimer's Cash Register.



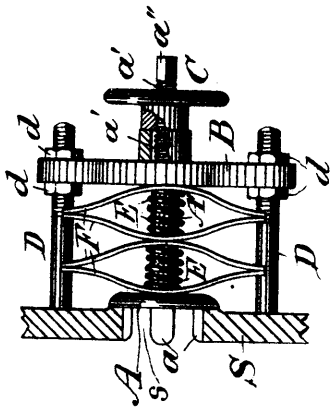
37825 Holbrook's Bark Cutter.



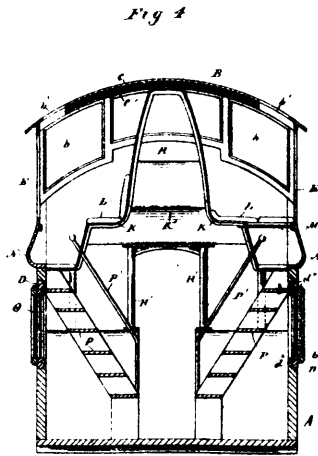
37827 Peck's Trestle.



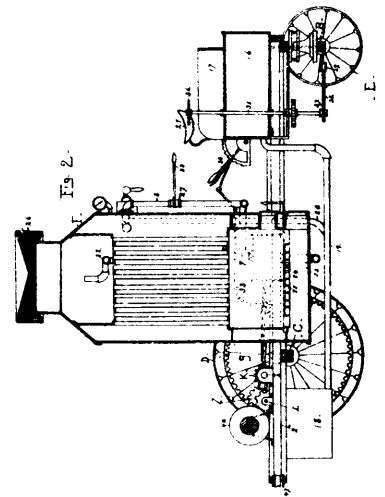
37828 Stokes' Envelope.



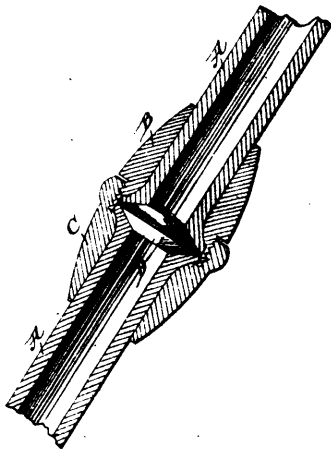
37829 McKim's Escape Blow-off and Drain Valve.



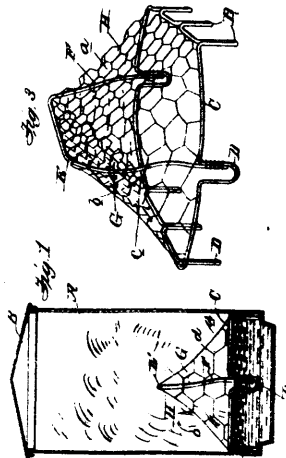
37830 McBride's Observatory Car.



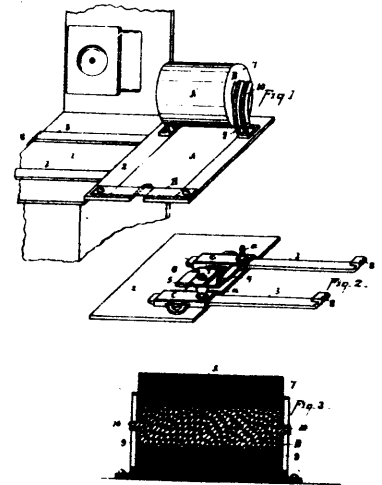
37831 Beckner's Traction Engine.



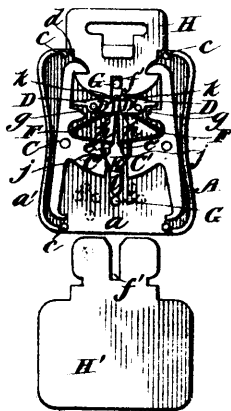
37832 Smith and McPherson's Pipe Coupling.



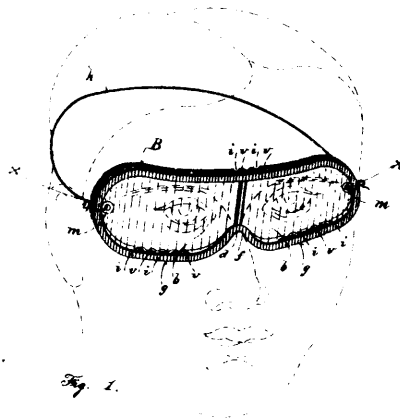
37833 Barrow's Wash Boiler.



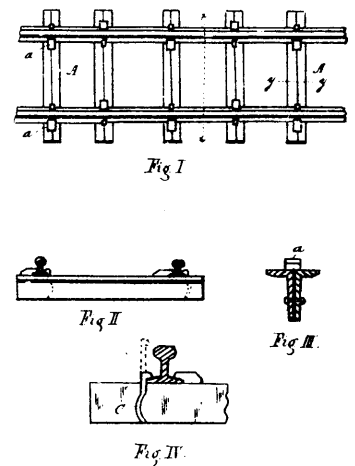
37834 Tatum's Telephone Tablet.



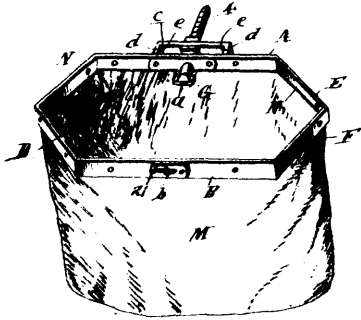
37835 Lockard's Look for Satchels.



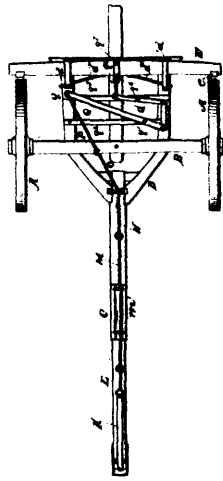
37836 Lamb and Shaw's Eye Guard.



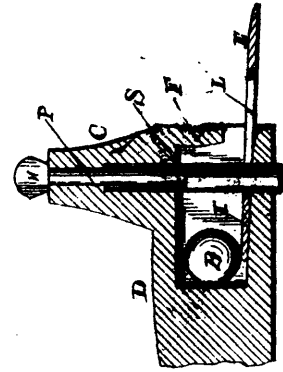
37837 Young's Railway Rail Fastening to Metal Ties.



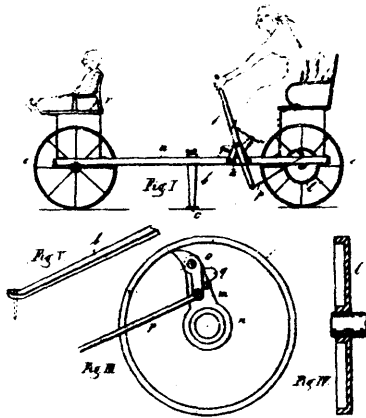
37839 Harrison's Frame and Holder for Sacks.



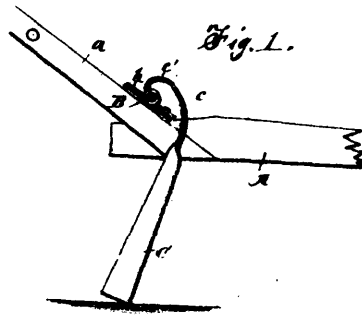
37841 Miller's Waggon Brake.



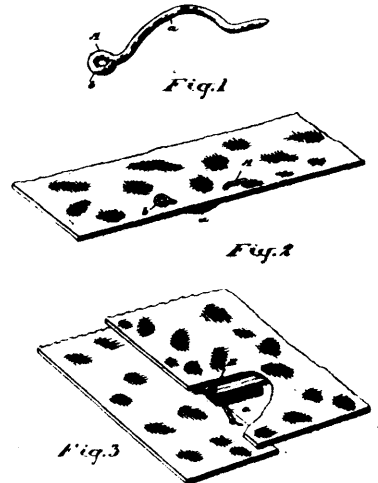
37842 Claussen's Car Coupler.



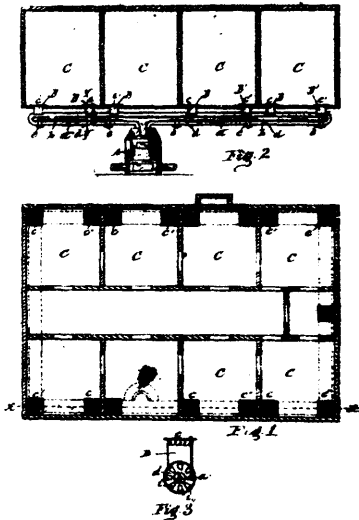
37843 Elliott's Lawn and Nursery Car.



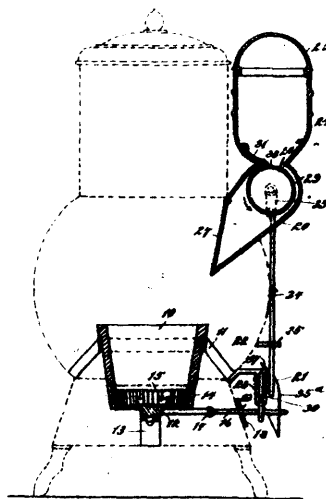
37844 Creighton and Drury's Attachment for Plows.



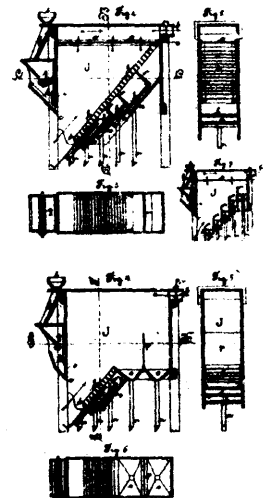
37845 Francis' Eye for Dresses.



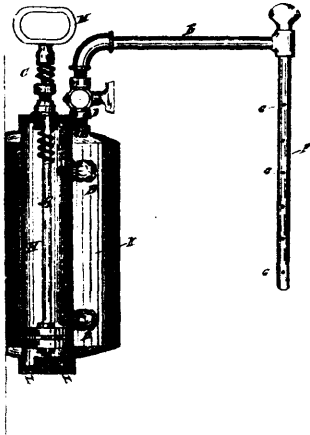
37846 Howard's Heating Apparatus.



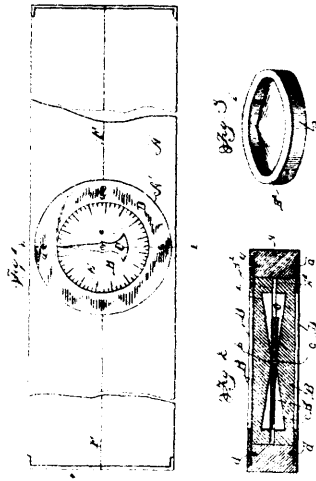
37847 Jones' Feeder for Heaters.



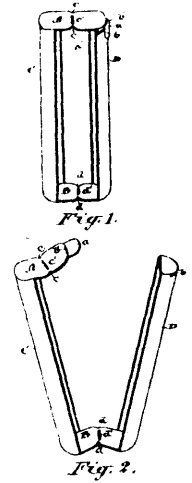
37848 Haggemaacher's Apparatus for Purifying and Sorting Grits.



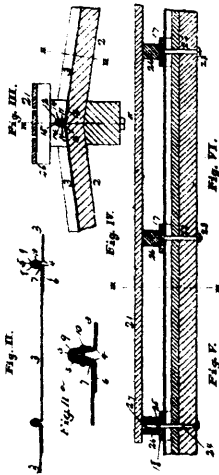
37849 Boyler and Rathwell's Air Pump Attachment to Stoves, etc.



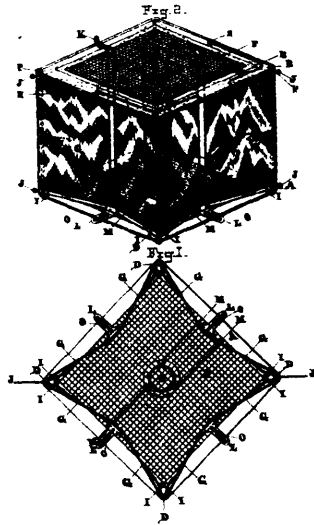
37850 Mounts' Gravity Plumb Level.



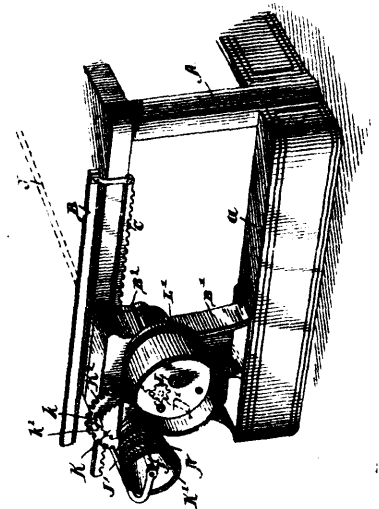
37851 O'Grady and Collins' Coin Holder.



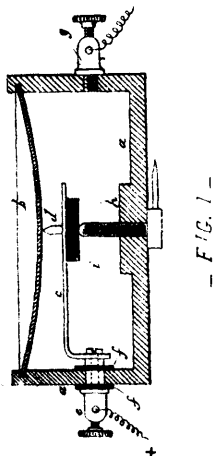
37852 Jennings' Car Roof.



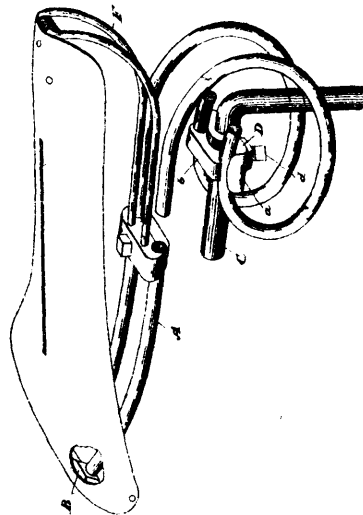
37853 Allison's Fish Trap.



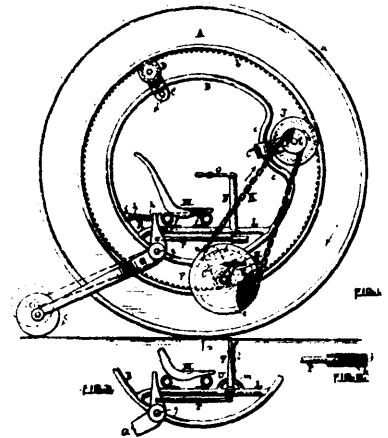
37854 Woodall's Attachment for Type Writers.



37855 Dion and Drolet's Electric Fire Alarm.



37856 Brooks' Saddle for Bicycles.



37857 Anthony's Velocipede.

## INDEX OF INVENTIONS.

Air moistening apparatus. William Virgil Wallace.	37,790	Gate. Selim D. Hathaway.	37,775
Alarm: see Fire alarm.		Gear: see Vehicle gear.	
Apparatus: see Air moistening apparatus. Disinfecting apparatus. Heating apparatus.		Generator: see Flask steam generator.	
*Atomizers and other devices. Apparatus for operating. Frederick J. Mitchell.	37,727	Governor for steam engines. Charles K. Longenecker, et al.	37,715
Axle bearings: see Self oiling axle bearings.		Grader: see Grain, etc.	
Band cutter: see Feeder and band cutter.		Grain. Gravity scalper, grader and bolter for. Frank Noble, et al.	37,749
Bark cutter. Byron Holbrook.	37,825	Gravity plumb level. Benjamin A. Mounts.	37,850
Base: see Stereotype plate and base.		Grits on semolina. Method of and apparatus for sorting. Carl Haggenschmacker.	37,848
Baling press. Albert A. Gehrt, et al.	37,718	Hanger: see Door hanger.	
Ball cock. William McShane, et al.	37,794	Heating apparatus. Charles De Zang Howard.	37,846
Bearings for journals, etc. William Stafford.	37,740	Heating drum. Robert Pugh.	37,728
Bearings: see Bolster bearings.		Heels: see Soles and heels.	
Bicycle. William S. Brooks, et al.	37,856	Holder: see Combination tool and holder. Frame and holder, etc.	
Boiler: see Wash boiler.		Holder for coins. Gerald de Courcy O'Grady, et al.	37,851
Bolster bearing for sleds. John J. McMann, et al.	37,776	Holder for spools. Silas G. Knight.	37,780
Bolter: see Grain, etc.		Hook: see Wire suspension hook.	
Boring soil under water. Machine for. James Canan.	37,763	Hot air furnace. William W. Sweetland.	37,756
Brackets for scaffolds. Simon Van Vliet.	37,731	Hot air register. John H. Reese, et al.	37,717
Brake: see Wagon brake.		Hot water circulation. System of. Russell Bottsford.	37,771
Carbon for arc lamps. Samuel Irwin.	37,743	Hydraulic dredging apparatus. Henry Ward Brown.	37,770
Car: see Observatory car.		Jet apparatus. Louis Schutte.	37,781
Car coupler. George Anderson Patten, et al.	37,752	Joint: see Railway joint.	
Car coupler. Henry Carter Bugg, et al.	37,802	Knife. Niels P. Nielsen.	37,754
Car coupler. Ianthus E. Marshall.	37,783	Ladder: see Safety rolling step ladder.	
Car coupler. Mosses Claussen.	37,842	Lawn and nursery car. Judson A. Elliott.	37,843
Car: see Lawn and nursery car.		Lawn sprinkler. Septimus R. Campbell, et al.	37,784
Carpet stretcher and tack driver. Liems Stewart Denison.	37,777	Leather feeder. Mathew Currie Tanner.	37,772
Cart: see Road cart.		Leg socket for stoves. Device for moulding. Lezard Kahn.	37,709
Cash register. Almy Le Grande Pierce, et al.	37,765	Level: see Gravity plumb level.	
Cash register. William George Latimer.	37,824	Line: see Clothes line.	
Cigar. Adolphus Moonelis, et al.	37,711	Lock: see Automatic sash lift and lock. Nut lock.	
Clothes line. Augustus H. Hoskins.	37,768	Lock for satchels, bicycles and baggage checks. John Roper Lockard.	37,835
Cock: see Ball cock. Flushing apparatus and stop cock.		Loom. James Knox.	37,739
Comb: see Electric comb.		Matches. Machinery for the manufacture of. Charles R. E. Bell.	37,814
Combination tool. Christopher C. Reynolds, et al.	37,798	Matts and ores. Method of treating, for the separation of nickel and cobalt from ores. Henri Louis Herrenscheidt.	37,826
Combination tool and holder. Fred Buck, et al.	37,815	Matts of nickel and copper. Process of refining. Jules Garnier.	37,838
Compound: see Medicinal compound.		Mechanical movement. S. B. Wartmann.	37,732
Cork extractor. Bernard Torney, et al.	37,816	Mechanical movement. Sigismund B. Wartmann.	37,753
Cork screw. David W. Davis.	37,744	Medicinal compound. John Morrison McLeod.	37,818
Corset. John Stuart Crotty.	37,728	Merchandise seller. George William Latimer.	37,788
Coupling: see Thill coupling.		Metal fence post. Thomas Jones Thorpe.	37,725
Crusher for ores. William Lorenzo Morris.	37,801	Metallic articles by electrolysis. Manufacture of and apparatus for that purpose. Alexander Stanley Elmore.	37,787
Cup attachment: see Oil cup attachment.		Milking cows. Apparatus for. William Murchland.	37,757
Cushions, etc.: see Rubber cushion.		Music: see Sheet music.	
Cuspidor. Charles Golden.	37,767	Neck yoke. Isaac Oke.	37,712
Cutter: see Bark cutter.		Nippers: see Cutting nippers.	
Cutter for butter. Joseph Chenier.	37,720	Nut lock. Alonzo C. Deal.	37,809
Cutting nippers. Sanford O. Root.	37,823	Nut lock. Charles Arthur Thompson.	37,786
Disinfecting apparatus. Frederick J. Mitchell.	37,719	Observatory car. Thomas J. McBride.	37,830
Door hanger. Edward Y. Moore.	37,800	Oil cup attachment for journal boxes. George B. Woodmancy.	37,724
Dredging apparatus: see Hydraulic dredging apparatus.		Ores: see Matts and ores.	
Driver: see Carpet stretcher and tack driver.		Packing of baking powder. Art of. William P. Clotworthy.	37,735
Drum: see Heating drum.		Paint. Robert Horsey.	37,807
Drum for cable railways. John Walker.	37,729	Paper or fabric material. Machine for cutting. Thomas Berney.	37,781
Electric comb. John Mathew Riley.	37,742	Pattern for drafting garments. Harriet A. Curry.	37,819
Electric wire subway. Marle E. Dansereau.	37,733	Pea harvester. Joseph H. Clement.	37,812
Engine: see Traction engine.		Picture frame. John Francis McBride.	37,769
Envelope. Joseph F. Stokes.	37,828	Pipe: see Stove pipe.	
Escape and drain valve. James McKim.	37,829	Pipe coupling. Nathaniel Edward Smith, et al.	37,832
Eye for dresses, etc. Henry Andrew Francis.	37,845	Plate: see Stereotype plate.	
Eyelet. George Sutherland, et al.	37,751	Plow. Robert Bruce McKay, et al.	37,766
Fagot making machine. Jonathan M. Sessions, et al.	37,748	Plows. Attachment for. John Creighton, et al.	37,844
Fastening for shoes, gloves, corsets, etc. Benny Bernstein.	37,806	Pocket attachment. Joseph Ledoux.	37,745
Feeder: see Leather feeder.		Post: see Metal fence post.	
Feeder and band cutter for threshing machines. Victor E. Calderwood, et al.	37,760	Pouch for tobacco. William James Cussen.	37,820
Feeder for heaters. William Jones.	37,847	Press: see Baling press.	
Felt. Duncan McCallum Fuller.	37,840	Propeller: see Screw propeller.	
Fire alarm. Charles Dion, et al.	37,855	Railroad cross tie. James Gamble Carson.	37,786
Flask steam generator. Edwin Reynolds.	37,737	Railway joint. John Martin Wiley.	37,721
Flushing apparatus and stop cock. Felix Louis Decarie.	37,808	Railway rails to metal ties. Fastening for. George W. Young.	37,887
Frame: see Picture frame.		Recorder: see Time recorder.	
Frame and holder for sacks. Thomas Wentworth Harrison.	37,839	Register: see Cash register. Hot air register.	
Frog. Albert M. Grubbs.	37,774		
Furnace: see Hot air furnace.			
Gas. Apparatus for the manufacture of. George M. S. Wilson.	37,755		

Removing scales from steam boilers and preventing their formation. Composition for. William Blackburn, et al..... 37,796  
 Road car. John Vandyke..... 37,762  
 Roof for cars. Curtis M. Jennings..... 37,852  
 Rubber. Samuel McKee Neill..... 37,821  
 Rubber cushion for billiard tables. Alexander Henry Costigan..... 37,773  
 Safety rolling step ladder. C. H. D. Sincennes..... 37,741  
 Sash holder and tightener. Algernon L. Wilkinson, et al..... 37,793  
 Sash lift: see Automatic sash lift.  
 Sash lift and lock. Charles Knapp..... 37,810  
 Saw: see Setting saws.  
 Saw teeth. William Edward Brooke, et al..... 37,799  
 Scalper: see Grain scalper.  
 Screw propeller. Charles Myers, et al..... 37,791  
 Seal. Andrew Jackson Phelps..... 37,758  
 Seller: see Automatic merchandise seller.  
 Self oiling axle bearings. James Shaw Patten..... 37,818  
 Setting saws. Machine for. Francis James Drake... 37,804  
 Sharpener for knives. George Geer..... 37,779  
 Sheet music. Charles Felton Pidgeon..... 37,782  
 Shield for eyes. Benjamin F. Lamb, et al..... 37,836  
 Shutters. Adjusting and locking device for. John R. Hunt, et al..... 37,817  
 Skate. Michael Weber, et al..... 37,797  
 Skate. Ubel Wierda..... 37,759  
 Soles and heels of boots and shoes. Metal plate for the. Herbert S. Lithgow, et al..... 37,716  
 Spike for railways. Samuel Childs Hill..... 37,674  
 Sprinkler: see Lawn sprinkler.  
 Stand for barrels. Gilbert Laurin, et al..... 37,765  
 Stand for fire irons. Hannah Meranda Pierce..... 37,722  
 Stencils. Apparatus for producing perforated. Herbert Fox Standing..... 37,747  
 Stereotype plates and base with locking device. Benjamin Franklin Harris..... 37,805  
 Stove pipe. Isalah Huffman..... 37,714  
 Stoves. Air pump attachment to. George S. Boyles, et al..... 37,849  
 Stretcher: see Carpet stretcher.  
 Stretcher for boots and shoes. Thomas Cheetham.... 37,822  
 Square. James Harvey French, et al..... 37,792  
 Subway: see Electric wire subway.  
 Subway for electric wires. William Readman, et al.. 37,750  
 Support for hammocks. Alexander Miller..... 37,803  
 Swarmer for bees. Nelson C. Petrie, et al..... 37,764  
 Telephone tablet. Eleanor Tatum..... 37,834  
 Teeth: see Saw teeth.  
 Thill coupling. Samuel Mirfield, et al..... 37,710  
 Threshing machine. Frank Frick Landis..... 37,811  
 Tie. see Railroad cross tie. Wire ball tie.  
 Tightener: see Sash holder and tightener.  
 Time recorder. Willard Le Grande Bundy..... 37,738  
 Tool: see Combination tool.  
 Trction engine. James Beckner..... 37,831  
 Trap for fish. James F. Allison..... 37,853  
 Trestle. Thomas James Peck..... 37,827  
 Type writers. Attachment for. William S. Romme, et al..... 37,854  
 Valve: see Escape and drain valve.  
 Vehicle gear. William Luther Pike..... 37,785  
 Velocipede. Noel L. Anthony..... 37,857  
 Waggon brake. Arthur W. Miller..... 37,841  
 Wash boiler. William Henry Barrow, et al..... 37,833  
 Waste of distilleries, breweries, etc., starch and glucose works. Method of utilizing. Alexander Parks..... 37,789  
 Wire bale tie. John Dennis Coon..... 37,713  
 Wire suspension hook. Charles Holman Thurston.... 37,778  
 Yoke: see Neck yoke.

Berney, Thomas. Machine for cutting paper or fabric material..... 37,781  
 Bernstein, Benny. Fastening for shoes, corsets, &c... 37,806  
 Blackburn, William, et al. Composition for removing scales from steam boilers, and preventing their formation..... 37,796  
 Bond, George Dwyer, et al. Subway for electric wires..... 37,750  
 Botsford, Russell. System of hot water circulation... 37,771  
 Boyler, George S., et al. Air pump attachment to stoves, &c..... 37,849  
 Brooke, William Edward. Saw tooth..... 37,799  
 Brooks, William S., et al. Bicycle..... 37,856  
 Brown, Henry Ward. Hydraulic dredging apparatus. 37,770  
 Buck, Fred., et al. Combination tool and holder..... 37,815  
 Bugg, Henry Carter, et al. Car coupler..... 37,802  
 Bnudy, Willard Le Grand. Time recorder..... 37,738  
 Busby, Matilda M. M., et al. Combination tool..... 37,798  
 Calderwood, Victor E., et al. Feeder and band cutter for thrashing machines..... 37,760  
 Campbell, Septimus R., et al. Lawn sprinkler..... 37,784  
 Canan, James. Machine for horing soil under water. 37,763  
 Carson, James Gamble. Railway cross tie..... 37,736  
 Caulfield, Haus James. Bicycle..... 37,856  
 Chamberlin, Walter Howard. Automatic merchandise seller..... 37,788  
 Chenier, Joseph. Cutter for butter..... 37,720  
 Cheetham, Thomas. Stretcher for boots and shoes... 37,822  
 Claussen, Mosses. Car coupler..... 37,842  
 Clement, Joseph H. Pea harvester..... 37,812  
 Clotworthy, William P. Art of packing baking powder..... 37,734  
 Collins, John R., et al. Holder for coins..... 37,851  
 Collins' Plow Company. Baling press..... 37,718  
 Coon, John Dennis. Wire bale tie..... 37,713  
 Costigan, Alexander Henry. Rubber cushion for billiard tables..... 37,773  
 Creighton, John, et al. Attachment for plows..... 37,844  
 Crotty, John Stuart. Corset..... 37,728  
 Curry, Harriet A. Adjustable pattern for drafting garments..... 37,819  
 Cussen, William James. Pouch for tobacco..... 37,820  
 Dansereau, Marie E. Electric wire subway..... 37,733  
 Davis, David W. Cork screw..... 37,744  
 Deal, Alonzo C. Nut lock..... 37,809  
 Decarle, Felix Louis. Flushing apparatus and stop cock..... 37,808  
 Denison, Linus Stewart. Carpet stretcher and tack driver..... 37,777  
 Dion, Charles, et al. Fire alarm..... 37,855  
 Donally, Melvin E. Cork extractor..... 37,816  
 Drake, Francis James. Machine for setting saws..... 37,804  
 Drolet, Gustave A., et al. Fire alarm..... 37,855  
 Drury, Clinton H., et al. Attachment for plows..... 37,844  
 Elliott, Judson A. Lawn and nursery car..... 37,843  
 Elliott, William R., et al. Combination tool and holder..... 37,815  
 Elmore, Alexander Stanley. Manufacture of metallic articles by electrolysis, and apparatus for that purpose..... 37,787  
 Francis, Henry Andrew. Eye for dresses, &c..... 37,845  
 French, James Harvey, et al. Square..... 37,792  
 Fuller, Duncan McCallum. Felt..... 37,840  
 Garnier, Jules. Process of refining mats of nickel and copper..... 37,838  
 Geer, George. Sharpener for knives..... 37,779  
 Gehrt, Albert A. Baling press..... 37,718  
 Golden, Charles. Cuspidor..... 37,767  
 Green, Alem J., et al. Combination tool and holder... 37,815  
 Grubbs, Albert M. Frog..... 37,774  
 Gurley, Eber Ashbel, et al. Composition for removing scales from steam boilers, and preventing their formation..... 37,796  
 Haggenschmidt, Carl. Method of and apparatus for sorting grits on semolina..... 37,848  
 Harris, Benjamin Franklin. Stereotype plates and base with locking device..... 37,805  
 Harrison, Thomas Wentworth. Frame and holder for sacks..... 37,839  
 Hathway, Selim D. Gate..... 37,775  
 Herbert, Frederick J., et al. Eyelet..... 37,751  
 Herrenschmidt, Henri Louis. Method of treating mats and ores for the separation of nickel and cobalt from ores..... 37,826  
 Hill, Samuel Childs. Spike for railways..... 37,746  
 Holbrook, Byron. Bark cutter..... 37,825  
 Hooton, Henry William, et al. Combination tool..... 37,798  
 Horsey, Robert. Paint..... 37,807

INDEX OF PATENTEES.

Allison, James F. Trap for fish..... 37,853  
 American Saw Company. Saw tooth..... 37,799  
 Anthony, Noel L. Velocipede..... 37,857  
 Barrow, Henry, et al. Wash boiler..... 37,833  
 Barrow, William Henry, et al. Wash boiler..... 37,833  
 Beckner, James. Traction engine..... 37,831  
 Bell, Charles R. C. Machinery for the manufacture of matches..... 37,814



Hoskins, Augustus H. Clothes line.....	37,768	Peck, Thomas James. Trestle.....	37,827
Howard, Charles De Zang. Heating apparatus.....	37,846	Peirce, Almy Le Grand, et al. Car register.....	37,795
Huffman, Isalah. Stove pipe.....	37,714	Petrie, Nelson C., and Croyden J. Swarmer for bees.	37,764
Hunt, John P., and Edwin N. Adjusting and locking device for shutters.....	37,817	Phelps, Andrew Jackson. Seal.....	37,783
Hyslop, William, et al. Bicycle.....	37,856	Pidgin, Charles Felton. Sheet music.....	37,782
Irwin, Samuel. Carbons for arc lamps.....	37,743	Pierce, Hannah Meranda. Stand for fire irons.....	37,722
Jennings, Curtis M. Roof for cars.....	37,852	Pike, William Luther. Vehicle gear.....	37,785
Jillard, Frank David, et al. Lawn sprinkler.....	37,784	Pugh, Robert. Heating drum.....	37,723
Jones, William. Feeder for heaters.....	37,847	Rayl, John Ezra, et al. Composition for removing scales from steam boilers and preventing their formation.....	37,796
Kahn, Lezard. Device for moulding leg sockets for stoves.....	37,709	Readman, William, et al. Subway for electric wires..	37,750
King, Charles Edward, et al. Cash register.....	37,795	Richmond Sash Holder Company. Sash holder and tightener.....	37,793
Knapp, Charles. Automatic sash lift and lock.....	37,810	Reese, John H., et al. Hot air register.....	37,717
Knight, Silas G. Holder for spools.....	37,780	Reynolds, Christopher C., et al. Combination tool.....	37,798
Knox, James. Loom.....	37,739	Reynolds, Edwin. Flash steam generator.....	37,737
Konigslow, Otto, et al. Combination tool and holder.	37,815	Riley, John Mathew. Electric comb.....	37,742
Lamb, Benjamin F., et al. Shield for eyes.....	37,836	Rippon, Amos, et al. Bolster bearing for sleds.....	37,776
Landis, Frank Frick. Thrashing machine.....	37,811	Robertson, George, et al. Fagot making machine....	37,745
Latimer, William George. Automatic merchandise seller.....	37,788	Roedel, Henry H., et al. Metal plate for the soles and heels of boots and shoes.....	37,716
Latimer, William George. Cash register.....	37,824	Romme, William S. Attachment for type writers....	37,854
Laurin, Gilbert and Joseph. Stand for barrels.....	37,765	Root, Sanford O. Cutting nippers.....	37,823
Ledoux, Joseph. Pocket attachment.....	37,745	Roper, Bailey A., et al. Plow.....	37,766
Lemay, Elfrema, et al. Stand for barrels.....	37,765	Rothwell, Frederick, et al. Air pump attachment to stoves, &c.....	37,849
Le Sueur, Arthur, et al. Feeder and band cutter for thrashing machines.....	37,780	Schutte, Louis. Jet apparatus.....	37,761
Lichtenstein, Benjamin, et al. Cigar.....	37,711	Shaw, Otis M., et al. Shield for eyes.....	37,836
Lithgow, Herbert S., et al. Metal plate for the soles and heels of boots and shoes.....	37,716	Shull, Walter, et al. Composition for removing scales from steam boilers and preventing their formation.....	37,796
Lochard, John Kope. Lock for satchels, bicycles and baggage checks.....	37,835	Sinceunes, C. H. D. Safety rolling step ladder.....	37,741
Lomi, Edward Brooks. Car coupler.....	37,802	Sissons, Jonathan M. Fagot making machine.....	37,748
Longenecker, Charles K. Governor for steam engines.....	37,715	Smith, Henry John, et al. Square.....	37,792
Marshall, IantLus E. Car coupler.....	37,783	Smith, Nathaniel Edward, et al. Pipe coupling.....	37,832
Mayo, Warren S., et al. Fagot making machine.....	37,748	Snider, Hiram, et al. Gravity scalper, grader, and bolter for grain.....	37,749
McAvity, Thomas, Alexander and George. Ball cock..	37,794	Stafford, William. Bearings for journals, &c.....	37,740
McBride, Thomas J. Observatory car.....	37,830	Standing, Herbert Fox. Apparatus for producing perforated stencils.....	37,747
McBride, John Francis. Picture frame.....	37,769	Stokes, Joseph F. Envelope.....	37,828
McKay, Robert Bruce, et al. Plow.....	37,766	Sutherland, George, et al. Eyelet.....	37,751
McKim, James. Escape and drain valve.....	37,829	Sweetland, William W. Hot air furnace.....	37,756
McLeod, John Morrison. Medicinal compound.....	37,813	Tanner, Mathew Currie. Leather feeder.....	37,772
McMann, John J., et al. Bolster bearing for sleds.....	37,776	Tatum, Eleanor. Telephone tablet.....	37,834
McPherson, John R., et al. Pipe coupling.....	37,832	Thompson, Charles Arthur. Nut lock.....	37,786
McShane, William. Ball cock.....	37,794	Thorp, Thomas Jones. Metal fence post.....	37,725
Miller, Alexander. Support for hammocks.....	37,803	Thurston, Charles Holman. Wire suspension hook...	37,778
Miller, Arthur W. Waggon brake.....	37,841	Tobler, George Hofmann, et al. Skate.....	37,797
Mirfield, Samuel, et al. Thill coupling.....	37,710	Tormey, Bernard. Cork extractor.....	37,810
Mitchell, Frederick J. Apparatus for operating atomizers and other devices.....	37,727	Vandyke, John. Road cart.....	37,762
Mitchell, Frederick J. Disinfecting apparatus.....	37,719	Van Vleet, Simon. Bracket for scaffolds.....	37,731
Moonells, Adolphus, et al. Cigar.....	37,711	Walker, John. Drum for cable railways.....	37,729
Moore, Edward Y. Door hanger.....	37,800	Wallace, William Virgil. Air moistening apparatus.	37,790
Morris, William Lorenzo. Crusher for ores.....	37,801	Webber, John Thomas, et al. Car coupler.....	37,752
Mounds, Benjamin A. Gravity plumb level.....	37,850	Weber, Michael, et al. Skate.....	37,797
Murchland, William. Apparatus for milking cows....	37,757	Wells, Matthew, et al. Screw propeller.....	37,791
Myers, Charles, et al. Screw propeller.....	37,791	Weston Engine Company. Governor for steam engines.....	37,715
Neill, Samuel McKee. Rubber.....	37,821	Wierda, Ubel. Skate.....	37,759
Ness, Charles Henry, et al. Composition for removing scales from steam boilers and preventing their formation.....	37,796	Wiley, John Martin. Railway joint.....	37,721
Neilsen, Nells P. Knife.....	37,754	Wilkie, Warren, et al. Hot air register.....	37,717
Noble, Frank, et al. Gravity scalper, grader, and bolter for grain.....	37,747	Wilkinson, Algernon L. Sash holder and tightener..	37,798
O'Grady, Gerald de Courey, et al. Holder for coins...	37,851	Wilson, George M. S. Apparatus for the manufacture of gas.....	37,755
Oke, Isaac. Neck yoke.....	37,712	Woodall, Adelaide H. Attachment for type writers.	37,854
Olliphant, Wm. Hews, et al. Thill coupling.....	37,710	Woodmancy, George B. Oil cup attachment for journal boxes.....	37,724
Parks, Alexander. Method of utilizing the waste of distilleries, breweries, &c., starch and glucose works.....	37,789	Wortmann, Sigismund B. Mechanical movement... ..	37,732
Patten, George Anderson, et al. Car coupler.....	37,752	Young, George W. Fastening for railway rails to metal ties.....	37,837
Patten, James Shaw. Self-oiling axle bearings.....	37,818		