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### INVENTIONS PATENTED.

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

**No. 19,718. Brick Machine.** (*Machine à Brique.*)  
William L. Gregg, Philadelphia, Penn., U. S., 4th July, 1884; 5 years.

*Claim.*—1st. In a brick machine, a hopper supported above an intermittently revolving mould-board or table, in combination with such mould-board and devices for agitating the hopper, substantially as and for the purposes specified. 2nd. In a brick machine, a hopper supported above a rotating mould-board or table, and devices for agitating the hopper, in combination with such mould-board or table, and a stamp or plunger located in the hopper and devices for automatically operating such stamp or plunger, substantially as and for the purposes specified. 3rd. In a brick machine, a pressure plate J provided with holes or vents, for the purposes of permitting the escape of air and surplus clay from the mould when pressure is applied to its contents, in combination with an intermittently rotating mould-table and an agitating hopper, substantially as and for the purposes specified. 4th. In a brick machine, a movable receptacle Q, automatically operated for the purpose of distributing colouring material or other material over the hopper surface or edge of a brick while being made, substantially as specified. 5th. In a brick machine, a movable box R, automatically operated for the purpose of pushing the brick from the table, and at the same time applying colouring material or other material to the surface of the piston or follower, substantially as specified. 6th. The combination of the shaft T, mutilated gear-wheel t, gear-wheel u, shaft W and arm v for the purposes of operating the stamp and receptacles Q, R, substantially as specified. 7th. The combination of the shaft T, mutilated gear-wheel t, gear-wheel u, shaft W, arms v and c, rod r, lever P, arm p and stamp N, substantially as and for the purposes specified. 8th. The combination of the shaft T, mutilated gear-wheel t, gear-wheel u, shaft W, arms v and b1 and receptacle Q, substantially as and for the purpose specified. 9th. The combination of the shaft T, mutilated gear-wheel t, gear-wheel u, shaft W, arms v, d1, e1 and receptacle R, substantially as and for the purpose specified.

**No. 19,719. Straw Band Grain Binder.**  
(*Lieuse à Grain avec Lien de Paille.*)  
Hooper Tuttle, Cedar Rapids, Iowa, U. S., 4th July, 1884; 5 years.

*Claim.*—1st. In combination, with the chamber B, the supporting and dividing darts c, c1, substantially as and for the purpose set forth. 2nd. In combination, with the chamber B, the supporting and dividing darts c, c1, and fingers F, F1, substantially as described. 3rd. In a grain-binder, the cylinder H having longitudinal chambers h, h and provided with spring fingers h1 and arm h2, in combination with spur wheel I, substantially as and for the purpose described. 4th. In combination, with a cylinder H having chambers h and operating in connection with fingers F, F1, the spring-fingers h1 suitably tripped by the driving mechanism, substantially as shown and described. 5th. In combination, with a grain-binder mechanism, substantially as described, for twisting the strands of a straw band and mechanism for receiving the strands and twisting the two in a direction opposite to the first twist of the several strands, substantially as described. 6th. In combination, with a grain-binder, of mechanism, substantially as described, for twisting the several strands of a straw band, mechanism for receiving the strands and twisting the same in a direction opposite to the first twist of the several strands, and the rolls K for

holding and drawing out the complete band. 7th. In combination, with the twisting mechanism and the band-fastening mechanism, the tension-pulley m swinging on the frame, the rod m1, clutch m2 and cylinder H, constructed and operated substantially as and for the purpose set forth. 8th. The grasper P composed of jaws p1, p2 and twister Pr having jaws p3, substantially as described. 9th. The swing-arm p, operated as described, and carrying grasper P composed of fixed jaws p1 and movable jaws p2, twister Pr, cam s and pawl p3, substantially as set forth. 10th. The grasper P and twister Pr, as described, having head p7, combined with socket Q and shaft q, operated as set forth. 11th. In combination, with the grasper P, twister Pr and socket Q, all substantially as set forth, the knife R and tucker S, each operated as described. 12th. In a grain-binder fixed and spring stops to control the passage of the bound gavel from the machine, whereby it will land upon the ground on its butt, substantially as set forth. 13th. In a grain-binder, the arm p, operated substantially as set forth, having pin p5 in its end to which is attached the twister P, the head p7, spring p10 and cam p8, combined with socket Q and shaft q2, substantially as set forth. 14th. The cylinder H, as described, provided with chamber h and mounted in bearings A1, in combination with the fixed gear H3 and revolving spring arms h4, all substantially as described. 15th. The cylinder H, as described, provided with chamber h and mounted in bearings A1, in combination with the fixed gear H3, revolving spring arms h4 and the rolls K for drawing out the straw bands and holding them in fixed position relatively to each other while being twisted together after they have come out of the cylinder H. 16th. In a grain-binder, the mechanism for making the strands, combined with the mechanism for twisting the same reversely into a continuous band, all substantially as described. 17th. In a grain-binder, the combination, with a receptacle for holding the straws which are to form the band of dividing darts which pierce the body of the straw at or near the middle of its length, and separate small quantities at a time to feed the same to the band-making apparatus, and mechanism for moving said darts from each other towards the ends of the straw to form a perfect separation of the same, substantially as set forth. 18th. In combination, with the twisting-cylinder and the band-placing arm, the swing-tension lever pivoted to the frame and having a rod connected therewith for operating the sliding-clutch of the twisted cylinder, substantially as described.

**No. 19,720. Seat and Foot-board for Row Boats.** (*Siège et Appui-Pied pour Canots à Rames.*)

James J. Turpel, Halifax, N. S., 4th July, 1884; 5 years.

*Claim.*—1st. A row boat provided with a sliding seat and a sliding foot-board connected together, and mechanism for causing the said seat and foot-board to automatically return to their normal positions, substantially as herein shown and described. 2nd. A row boat provided with a sliding seat and with a sliding foot-board, which are combined to move in opposite directions, substantially as herein shown and described. 3rd. The combination, with a row boat, of a sliding seat and a sliding foot-board, a lever swinging in the vertical plane, and connecting rods for connecting the seat and foot-board with the ends of the said lever, substantially as herein shown and described. 4th. The combination, with a row boat, of a sliding seat and a sliding foot-board, of a spring for moving the seat forward and of devices for connecting the seat and foot-board in such a manner that they slide in opposite directions, substantially as herein shown and described. 5th. The combination, with a row boat, of the sliding seat A, the sliding foot-board J, the lever E, the connecting rods D and M connecting the ends of the lever E with the seat A and foot-board J respectively, the spring G and the cross-piece H, substantially as herein shown and described.

**No. 19,721. Toe-Weight for Horses.**

(*Pesée pour Sabots de Cheval.*)

Edwin G. Miles, Fenton, Mich., U. S., 4th July, 1884; 5 years.

*Claim.*—1st. The toe weight A having an inner concave surface to fit the hoof B, and provided with a perforation or perforations, as shown and described, whereby the weight may be rigidly secured to the hoof by screws only. 2nd. In a toe weight, the weight A (Fig. 2) with inner concave surface and perforations a, dove-tailed slot and the spur c, as shown and described for the purpose set forth.

### No. 19,722. Reaper Knife Section Sharpener. (*Rémouleur pour Couteaux de Faucheuses.*)

Porter Williams, London, Ont., 4th July, 1884; 5 years.

*Claim.*—1st. The frame F provided with slots *a, a*, substantially as shown and described and for the purpose specified. 2nd. The knife-holder H, constructed in two parts *x, x1*, connected together with a swivel joint, substantially as shown and described. 3rd. The combination of the elevated boxings B, B provided with slots *a1, a1*, with the frame F, shaft *d2* and upright U, substantially as shown and described and for the purpose set forth. 4th. The combination of the upright U provided with bevelled edge N1 and slot U1, and vertically adjustable box B1 provided with bevelled inner face N2, with the wrist pin P, eccentric wheel *v* and eccentric slide E1, substantially as shown and described and for the purpose specified. 5th. I. a reaper and mower knife section sharpener, the combination of the driving cog-wheel C2 provided with set screw *e3*, with the shaft *d2*, bearings *e3* and thumb screw *h4*, substantially as shown and described and for the purpose specified. 6th. In a reaper and mower knife section sharpener, the combination of the rest R, with the forked knife-holder H and vertically adjustable box B1, substantially as shown and described and for the purpose specified.

### No. 19,723. Device for Instruction and Amusement. (*Appareil pour Instruire et Amuser.*)

James D. Van Bibber, Springfield, Mo., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. A device for instruction and amusement, composed of a box D having a cover A marked off in the square of an odd number of squares, combined with a frame C composed of hinged pieces *c, c2, c3*, etc., and blocks numbered consecutively equal to the number of said squares, all substantially as shown and described. 2nd. The combination of a box D, with a cover A off in squares, a frame C having parts *c, c2, etc.*, which expose the square of an odd number of squares as 3, 5, 7, or 9, etc., squared and blocks numbers consecutively, substantially as shown and for the purpose set forth.

### No. 19,724. Fountain Shoe Brush.

(*Brosse-Fontaine à Souliers.*)

Pierre Côté, St. Hyacinthe, Que., 4th July, 1884; 5 years.

*Claim.*—1st. A box or reservoir for liquid blacking provided with a capped filling hole, a circular or other rim to receive and retain the back of a blacking brush, and having a central spout or tube penetrating the back of the brush, the inner orifice of said tube closed by a valve secured upon a spring-lever operated by a lever at the outside of the reservoir and communicating with the valve lever by a pin, in combination with a brush A provided with handle A1. 2nd. In combination, with a handled brush A, a reservoir B secured thereto and provided with a seat C having a spout or tube C1 passing through the back of the brush D seated therein, and allowing the contents of the reservoir to saturate the brush material at will by the operation of the lever F controlling a valve E. 3rd. The combination of the reservoir B having a tube or spout C1, the internal aperture of which is closed by a valve E secured upon a spring-lever E1, which is controlled by the hand lever F communicating therewith by a pin *f*, all substantially as shown and described and for the purpose set forth.

### No. 19,725. Manufacture of Cartridges.

(*Fabrication des Cartouches.*)

La Société Anonyme Dynamite Nobel, Iseten, Switzerland (assignee of François Barbe, Paris, France, 4th July, 1884; 10 years.

*Claim.*—The manufacture of solid water-proof cartridges from granular and other explosives, by bringing the explosive to a cylindrical form, immersing the solidified explosive either uncovered or enclosed by an envelope in a melted water-proofing composition of the kind above indicated, and then wrapping the explosive while hot in an envelope which has been previously treated or prepared with a similar composition, substantially as and for the purpose described.

### No. 19,726. Compound for Table and Other Uses. (*Composition pour l'usage de la Table et autre.*)

Robert Heron and Alexander Bourgeau, Montreal, Que., 4th July, 1884; 5 years.

*Claim.*—As a new article of manufacture, a compound composed of ground rice, celery seed, Zanzibar chillies, white pepper, powdered sugar and salt, substantially in the manner and for the purposes described.

### No. 19,727. Utilization of Birch Bark.

(*Utilisation de l'Ecorce de Bouleau.*)

Eugène Guay and Auguste David, Montreal, Que., 4th July, 1884; 5 years.

*Claim.*—1st. As a substitute for leather, the use of birch bark, in the manner set forth. 2nd. Birch bark having a facing of leather cemented thereto. 3rd. Birch bark having a facing of leather cemented thereto, and passed between calendar rollers to impart solidity and finish. 4th. A number of shaped layers of birch bark laid transversely to each other, the layers united by cement and by nailing or rivetting. 5th. One or more shaped layers of birch bark faced with leather and united by stitching. 6th. As a new article of manufacture, one or more layers of birch bark having a facing of leather cemented thereto, all substantially as described and for the purpose set forth.

### No. 19,728. Hay Carrier. (*Monte-Foin.*)

Ambrose L. Jordan and Richard C. Jordan, Ottawa, Ont., 4th July, 1884; 5 years.

*Claim.*—1st. The sectional carrier having the rectangular channel or recessed opening extending upward from its bottom, the crescent-shaped and top heavy carrier hook *m* having the shoulder *n*, the latch lever P having the shoulder *n1*, and the longitudinal under recess or groove *v1* and the looped pulley block *q* and catch R, substantially as specified. 2nd. The combination, with the under grooved latch-bar having the shoulder *u1* and the bevelled catch end projecting from the carrier body, of the top heavy carrier hook having the forwardly projecting upper end and the shoulder *d* and the catch block R, substantially as specified.

### No. 19,729. Pigeon Hole. (*Boulin à Pigeon.*)

Harry D. Purcell and Oliver H. Saxton, Washington Court House, Ohio, U.S., 4th July, 1884; 5 years.

*Claim.*—1st. A nest of pigeon holes whose enclosing vertical walls and partitions project slightly in front of the horizontal partitions, and have vertical grooves on each side containing sliding shutters resting edge upon edge, in combination with a door, substantially as set forth. 2nd. A nest of pigeon holes, whose enclosing vertical walls and partitions project slightly in front of the horizontal partitions, and whose vertical grooves contain sliding shutters resting edge upon one another, in combination with a hinged door provided with a rear lug or projection, as and for the purpose set forth. 3rd. A nest of pigeon holes, whose enclosing vertical walls and partitions project slightly in front of the horizontal partitions, and are grooved for sliding shutters which rest upon one another edgewise, in combination with a hinged door provided with a rear lug or projection and a lock, substantially as and for the purposes set forth. 4th. In a nest of pigeon holes, the combination of a case A, forwardly projecting and grooved vertical walls and partitions B, horizontal partitions C, slides D, buttons E and hinged door G having the rear lugs I, lock J and prop L, substantially as set forth.

### No. 19,730. Harness Buckle. (*Boucle de Harnais.*)

James A. Gavitt and Charles F. Wightman, Walla Walla W.T., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The combination, with a buckle frame A having end bar *a*, of the curved tug frame E passing under the end bar and up through the buckle, and having the stud *c* adapted to enter the perforations of the trace, substantially as described. 2nd. The combination of the buckle frame A having loops C, C and D and end bar *a* with perforated plate portion, and the tug frame E, curved as described, and having stud *c* adapted to pass through the trace and the perforated plate beneath, substantially as shown and described.

### No. 19,731. Beer Pump. (*Pompe à Bière.*)

Joseph E. Beauchemin, Sorel, Que., 4th July, 1884; 5 years.

*Réclame.*—En combinaison réciproque pour constituer ma nouvelle pompe foulante et aspirante, le recipient A et la membrane B munie ou non munie d'un ressort S, en spirales coniques, la soupape automatique P et le robinet à trois voies H, le tout tel que décrit ci-dessus et pour les fins indiquées.

### No. 19,732. Grain Drill. (*Semoir en Lignes.*)

William P. Shortridge, Jr., and William P. Shortridge, Easton, Mo., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The cutter-frame W W1 mounted in standard S S1 secured to the main frame A, whereby the cutter-frame is adjustable independent of the main frame, as set forth. 2nd. The combination, with the cutter-frame, of the curved springs *m* secured directly to the boots M, as set forth. 3rd. The frame A having standards S, S1, S11 having slots *t*, in combination, with the cutter-frame W W1 provided with brackets *v*, as set forth. 4th. The cutter-frame W W1 having slots W W1, in combination, with the cutters X, Y, M and curved spring *m*, as set forth. 5th. The cutter-frame W W1 having extensions 38 and 39, provided with connecting-rods 40 and 41, as set forth. 6th. The combination, with the main frame A having levers 43 and 45, as set forth. 7th. The combination, with the boots M, springs *m* and cutter-frame W W1, of the cutter Y having cut away portion 13, as and for the purpose set forth. 8th. The boot M having lug 10, slot 11, set screw 12 and spring 12r, in combination with cutter Y and spring *m*, as set forth for the purpose set forth. 9th. The cutter-frame W W1 having slots W1, W1, in combination, with the boots M, spring *m*, cutter Y and adjustable brackets X, as set forth. 10th. The tongue U and double-tree 23 pivotally secured thereto by the bolt 4, in combination with the clevis 5 having a series of holes 7 and secured to the double-tree by bolts 6, as and for the purpose set forth. 11th. The cutter-frame W W1, tongue U having angle-plates *u, u* and standards *v, v*, as in combination with the main frame A having brackets S, S1, S11, as set forth for the purpose set forth. 12th. The cutter-frame having extensions 38 and 39 provided with connecting-rod 40, in combination with the main frame A having adjustable cross-bars 60, and block 46 mounted the levers 43 and 45 having connecting-rod 47, and block 46 provided with rear extension 52, as and for the purpose set forth. 13th. The combination, with the cutter-frame, of the lever 49 having slot 42, the lever 45, block 46 and connecting-rod 47 having toe 43 and the check 50, as set forth. 14th. In a grain drill, the main driving shaft C having loosely-mounted wheels *c*, adjustable collars *c1, c2*, clutch F and spring G, as and for the purpose set forth. 15th. In a grain drill, the shaft C having grooves *u1*, clutch F and key A, in combination with the wheels *c, c1*, springs G and collars *c1, c2*, as and for the purpose set forth. 16th. The shaft C having grooves *u1*, collar *d1* and clutch D1 having annular recess *d*, in combination with the sprocket-wheel D and hand-lever E, as and for the purpose set forth. 17th. The frame A having slot 25, holes and braces 20, 20r, in combination with the standard 23, frame 22, 22r and seat-rail 19, having plate 36, and seat-carriage 28 provided with rollers 30, 30r, extension 31, lever

33 and friction-spring 35, as and for the purpose set forth. 17th. The combination, with the driving-shaft C, chain H and sprocket-wheels D, L, of the feed-shaft J having feed-wheel N, and the feed-box L provided with inclined opening K, bracket 62 and adjustable funnel 64, as set forth. 18th. The seed box K having opening K, and feed-box L provided with diagonal outlet K, in combination with the shaft J, feed-wheel N and regulating cylinder O, as and for the purpose set forth. 19th. The shaft J having adjustable feed-wheel N provided with inclined flutes 62, in combination with the shaft P, arms O and cylinder O and the regulating lever R and gage-plate R<sub>1</sub> R<sub>2</sub>, as and for the purpose set forth. 20th. In a grain-drill, the feed-box L having bracket 62 provided with studs 66 and slots 63, in combination with the funnel I having ears 67, slots 70 and holes 69, as and for the purpose set forth. 21st. In a grain-drill, the seed-box K having cover 71 and plates 72, provided with arms 73 and crank 74, as and for the purpose set forth.

### No. 19,733. Spring Hinge. (*Penture à Ressort.*)

George M. Lane, Asbury Park, N.J., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The combination of the lower knuckle, the knuckle C provided with slots C<sub>1</sub>, the knuckle A<sub>1</sub> arranged between said knuckles, and the spring-cap arranged in knuckle A<sub>1</sub> and interposed between the spring and the knuckle C and provided with sliding surfaces adapted to enter the slots C<sub>1</sub> when the spring is at rest, whereby the longitudinal expansion of the spring is utilized at such times to hold the door against the force of the wind, substantially as set forth. 2nd. In a spring hinge, the combination of the knuckle D having slots D<sub>1</sub>, the spring I arranged in said knuckle, the plate G placed on said spring and provided with pawls A, the ratchet-ring having a suitable cross-bar or transverse projections and the hinge-spring and bifurcated pintle, all arranged and operating substantially as set forth. 3rd. In a spring-hinge, the combination, with the knuckle A<sub>1</sub> having slots a<sub>1</sub> a<sub>2</sub>, of the spring cap J having sliding surfaces K<sub>1</sub> and slot K<sub>2</sub> and the hinge-spring and pintle, substantially as and for the purposes specified. 4th. The combination of the knuckle D provided with slots D<sub>1</sub> having lateral wings D<sub>2</sub>, the pawl-spring, the pawl plate provided with pawls having lateral extensions H<sub>1</sub> and the ratchet-ring pintle and hinge-spring, substantially as and for the purposes specified.

### No. 19,734. Lubricator. (*Graisneur.*)

Samuel Reid, Chicago, Ill., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. A sight-feed, the glass of which contains an excess of air under pressure, substantially as described. 2nd. A sight-feed lubricator containing an excess of air under pressure, in combination with devices, substantially as described, for supplying air to and compressing the same in the sight-feed, substantially as described. 3rd. The combination, with a lubricator, of a sight-feed tube arranged at a point between the air reservoir and oil-passage to a steam-pipe, said feed containing air under pressure, substantially as described. 4th. In a lubricator, the combination with a sight-feed and the outlet oil-passage to the steam-pipe, of an intermediate oil-passage adapted to contain an opposing column of oil for preventing the steam from entering the sight-feed, substantially as described. 5th. The combination, with a sight-feed and with the direct outlet of the oil to the steam pipe, of a horizontal passage B and a vertical passage I connecting said outlet and sight-feed, substantially as described. 6th. A combined valve and nozzle, the nozzle of which is provided with perforations intersecting and extending at a right angle to each other, substantially as described. 7th. In a lubricator, the combination with the oil-reservoir, the passage B, the plug K and its bushing, of the combined and removable valve and nozzle and sight-feed, substantially as described. 8th. The combination with the sight-feed with the projecting oil-nozzle, of an air supply tube extending up into the sight-feed and above the opening of the nozzle, substantially as described. 9th. In lubricators, the herein-described method of feeding oil, which consists in passing oil through a glass tube filled with an excess of air under pressure. 10th. In a lubricator, a means for determining the amount or quantity of oil or other liquid being injected or fed, consisting of a sight-feed arranged in a supply-pipe and a valve for limiting or regulating the passage of the liquid there-through, substantially as described.

### No. 19,735. Road Grading and Ditching Machine. (*Machine à Nivelier et Fossoyer les Chemins.*)

John W. Otterman, (Co-Inventor with Christian A. R. L. Ver Gonius), Gatesburg, Ill., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. In combination with the wheeled frame, plow, carrier belt L and lateral frame I carrying the dirt-belt, the shaft M having universal joints m<sub>1</sub>, m<sub>2</sub> and geared with the wheel C and said carriers as specified. 2nd. In combination with the wheeled frame plow and dirt-carrying belts, the lever E journaled on the axle and connected with the forward end of the plow-beam by a link f, substantially as and for the purpose specified. 3rd. The combination of the wheeled frame axle, plough-beam, the lever E and its segmental rack-bar, and the pendant f<sub>1</sub> adapted to slide laterally on the axle and to be held by the cam lever f<sub>1</sub>, substantially as and for the purpose specified. 4th. In combination with the wheeled frame and plow-beam, the pendant f<sub>1</sub> adjustable laterally at its upper end on the axle, and at its lower end in the slotted brace f<sub>1</sub>, substantially as and for the purpose specified. 5th. In combination with the wheeled frame plow and dirt-carrying belts and frame I, the wheel having its rearwardly projecting bent lever hinged to the rear end of the plow-beam adapted to operate, substantially as and for the purpose specified. 6th. In combination with the plow, the adjustable rod R and adjustable castor-wheel Q, the lateral belt carrying frame I hinged to the plow-beam to permit swinging the outer end of said frame I laterally and vertically, substantially as and for the purpose specified. 7th. In combination with the plow, the laterally extending frame I hinged at one side to the plow-beam by a universal joint and at its other side by a slotted connection which permits swinging said frame I laterally, substantially as and for the purpose specified. 8th. The combination of the

wheeled frame, the plow-beam hinged thereto, the lateral belt carrying frame I having a pulley upon its lower shaft, the carrier-belt N<sub>1</sub> having geared shaft N<sub>1</sub>, and a shaft M having gear wheel N which meshes with gear wheel N<sub>1</sub>, and a pulley connected with the pulley on the shaft of frame I by a band, substantially as described.

### No. 19,736. Harvester Rake.

(*Râteau de Moissonneur.*)

Christopher Lidren and Relief Jackson, Lafayette, Ind., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. In combination with a horizontally vibrating rake-arm having vertically-vibrating rake-teeth, the grain platforms A, A<sub>2</sub> arranged in different horizontal planes, all adapted to operate, substantially in the manner and for the purpose described. 2nd. The combination, with the oscillating bar C<sub>4</sub>, of the slide bar to which the rake-teeth are pivoted guided in its longitudinal movements upon the oscillating bar, the slide bar C<sub>3</sub> to which the rake teeth are also pivoted and the bell crank lever and connecting rod, for operating the slide-bars, and oscillating the bar by which they are supported, all adapted to operate, substantially as described. 3rd. The combination, with the two slide-bars to which the rake-teeth are pivoted, of the slotted bar C<sub>4</sub> having an oscillating and a longitudinal movement, and the curved guide-bar which is embraced by two rollers carried by the oscillatory bar, whereby the longitudinal movements of the bar are effected, and the rake is carried forward in a straight path over the platform, substantially as described. 4th. The combination with the two slide-bars to which the rake-teeth are pivoted, and means, substantially as described, for operating the same, of the pivoted dogs e<sub>7</sub>, the lug b<sub>5</sub> on one of the slide-bars, and the projection a on the remaining slide-bar, said lug and projection during the operation respectively coming in contact with a pivoted dog, substantially as described, and for the purpose specified. 5th. The combination with the pivoted rake for carrying off the bound gavel of the slide to which the rake is pivoted carrying a pivoted two-armed dog, and the stops located so that as the rake is moved forward one of said stops will actuate the dog and allow the rake to drop, and when the rake is carried back the remaining stop will actuate said dog, so as to raise and hold up the rake, substantially as described.

### No. 19,737. Cultivator. (*Cultivateur.*)

John G. Trump, Richville, Mich., U.S., 4th July, 1884; 5 years.

*Claim.*—The lever D, in combination with bars I and a rod i, drag-bars F, standards G, braces H and teeth, substantially as and for the purpose herein described.

### No. 19,738. Machine for Soldering Cans.

(*Machine à Souder les Boîtes Métalliques.*)

George A. Marsh, Brunswick, Me., U.S., 4th July, 1884; 10 years.

*Claim.*—1st. In a device for soldering cans, a soldering tool having a horizontal circular ledge upon which the can may be revolved, a rim surrounding the ledge by which the solder is applied to the can and apertures for the admission of the method solder, in combination with a solder receptacle surrounding the tool. 2nd. In a device for soldering cans, the combination of the receptacle a, with recess m and the tool consisting of the ledge d, rim c and apertures e, substantially as described. 3rd. In a device for soldering cans, the combination of the ledge d, rim c, slots e and cup n, substantially as described. 4th. In a device for soldering cans, the combination of the tool having the ledge d and rim c, and cup n, with the passage f, substantially as described. 5th. The combination of the receptacle a having the recess m, the tool fixed within the receptacle and the plunger h, substantially as described. 6th. The combination of the receptacle and tool, as described, with the bar i, piece h and spring o, substantially as described.

### No. 19,739. Handle for Cross-Cut Saws.

(*Fût de Scie de Travers.*)

Andrew Uren, Seattle, W. T., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The combination, with the saw blade G, of the flat bar A having a socket B, and a U-shaped bracket D provided with a handle E, and a vertical post a abutting against the end of the saw blade, and having lugs F straddling the end of the blade, and upright handle C slotted at its lower end to receive the upper edge of the saw blade, substantially as shown and described. 2nd. The combination, with the saw blade G and flat bar A having an aperture L, socket B and bracket D provided with a handle E and lugs F, of the slotted rod H, nut K and upright handle C slotted at its lower end, substantially as shown and described. 3rd. In a saw handle, the combination, with the bar A adapted to be held on the saw, and of a cushion or buffer M on the inner end of the handle, substantially as herein shown and described.

### No. 19,740. Fountain Pen. (*Plume-Fontaine.*)

James P. Hoyt, Newton, Ct., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The hollow casing A having the upper end tightly closed, and the lower end nearly closed to form a holding seat for a separate pen, as C, with a point A<sub>1</sub> properly formed to constitute a writing point integral with the body of the case A, whereby the said casing may be used as a pen or as a holder for a separate pen or both, simultaneously, as herein specified. 2nd. The casing A adapted to perform the double functions of a pen-holder and ink-reservoir, in combination with a suitable writing point at the lower end, with an elastic bulb M at the upper end and with a separate pen, as C, all arranged for joint operation, as herein specified. 3rd. The inner case or feeder B having the split b, in combination with the outer casing A having a tightly closed upper end arranged for joint operation, as herein specified. 4th. The inner case or feeder B having a point B<sub>1</sub> and a projection B<sub>2</sub>, the outer case A having a point A<sub>1</sub> and means for tightly closing the upper end, combined and arranged for joint



**No. 19,751. Car-Coupling. (*Accouplage de Chars.*)**

Donald Fraser and Vietts L. Rice, Minneapolis, Minn., U.S., 7th July, 1884; 5 years.

*Claim.*—1st. In a car-coupling, a cam disk or plate C pivoted eccentrically in the draw-head, as set forth, provided with projections I and a, and stop M, in combination with the slotted pin F, as set forth. 2nd. In a car-coupling, the draw-head provided with an open slot in which is pivoted the cam-plate C as described, said cam-plate being provided with a stop M which impinges against the draw bar at the rear end of said slot, as and for the purpose set forth.

**No. 19,752. Reel for Wire. (*Dévidoir à Fil de fer.*)**

Lyman P. Johnson, Seneca Castle, N. Y., U. S., 7th July, 1884; 5 years.

*Claim.*—1st. The combination, in a reel for holding and distributing wire in the construction of wire fences, of the shaft or axle mounted upon wheels, the flanged wheels provided with internal cogs, the intermeshing pinions, the frust m-shaped sleeves provided with longitudinal feathers or ribs, and the reel adapted to be secured on the said shaft by means of the sleeves, the whole adapted to operate substantially in the manner specified. 2nd. The combination, with the shaft, the loose sleeves mounted thereon and the gearing for actuating the reel, of the hinged frame, whereby the reel may be attached and detached, substantially as and for the purpose specified.

**No. 19,753. Lawn Mower. (*Faucheuse.*)**

Charles W. Cheney, Athol, Mass., U.S., 7th July, 1884; 5 years.

*Claim.*—1st. The combination of the frame of the machine, the rotary axle carrying the drive wheels, a cutter supporting bar secured across the front of the frame, a cam wheel secured on the axle, a horizontally-oscillating lever fulcrumed on the frame in rear of the cam wheel, longitudinally oscillating levers fulcrumed at the sides of the frame and connected to the main oscillating lever, as described, and the cutter bars connected with the ends of the longitudinal levers, as set forth. 2nd. The combination of the frame of the machine, the cutter supporting bar secured to the front end thereof, the supporting roller journalled in rear of said bar, the rotary axle having the cam wheel, a lever fulcrumed on the frame and oscillated by the cam, the longitudinal side levers pivoted on the frame at the sides, links connecting said levers with opposite ends of the main oscillating lever, and the cutter-bars arranged one above the other and connected to the lower ends of the longitudinal levers, as set forth. 3rd. In a lawn mower, the combination of the independent series of knives or cutters disposed one series directly above the other, and reciprocated in opposite directions, the teeth being formed with one straight edge at about a right angle to the the cutter bar, as set forth.

**No. 19,754. Curtain Fixture. (*Suspension de Rideau.*)**

Alvah Sweetland, Syracuse, N. Y., U.S., 7th July, 1884; 5 years.

*Claim.*—1st. The combination of a roller spindle having a groove and an adjacent flat surface, and a bolt carried by a roller for locking the same by contact with the groove, and the bite of the edge of the groove upon the locking bolt, substantially as and for the purposes set forth. 2nd. The combination of the spindle provided with the groove a and adjacent flat surface c and the collar E, and bolts e, substantially as shown and described. 3rd. The combination of the spring roller a, spindle B, collar E, bolts e and ferrule i, the spindle and collar being constructed and operated to bite the bolt with the edge of the groove, constructed and operated together, substantially as described for the purpose specified. 4th. The head bracket C constructed with a base screw F, stem y and studs o provided with a shoulder r, substantially as shown and described. 5th. A roller spindle constructed with hub z having therein a groove a and adjacent flat surface c, a shoulder s and a semi-spherical head D having a hole through it, by which the spindle is connected to the brackets and prevented from revolving, substantially as shown and described. 6th. The tail bracket H constructed with base screw F, stem y and studs o, e, substantially as shown and described. 7th. A curtain fixture consisting of the roller a, spindle B, collar E, bolt seats d and bolts e, engaging with the groove a and flat surface c of the spindle, the spindle head D, bracket C, tail piece N and bracket H, constructed and operated together, substantially as and for the purposes specified. 8th. The spindle B provided with a head D, in combination with the bracket C provided with the studs o and shoulder r, substantially as and for the purposes set forth. 9th. The perforated semi-spherical spindle head D, in combination with a bracket having a stud o, constructed substantially as described. 10th. In a curtain roller, the collar D constructed with bolt seats d with parallel sides and each being on a line tangential to the spindle hole, and through which the bolts project diagonally into the spindle hole, so that the edge of the groove a in the spindle bites against the side of the bolt to lock the roller, in combination with the locking bolts e, e, reciprocating in the bolt seats, substantially as and for the purposes specified. 11th. In a curtain roller, the collar D constructed with bolt seats d, each being on a line tangential to the spindle hole therein, in combination with locking bolts e, e reciprocating in the bolt seats, substantially as and for the purposes specified.

**No. 19,755. Railroad Signalling Apparatus. (*Appareil à Signal de Chemin de Fer.*)**

Louis C. Huber, Huber, Ky., U. S., 8th July, 1884; 5 years.

*Claim.*—The combination, with the caboose of a railway train, of the cylinder h, the eccentric rod f connected to one of its axes and joined to the piston-rod, the drum l connected to the cylinder h by a pipe k having check valve m, and cylinder h being provided with a supply or inlet pipe i having a check valve j, and the tube u leading from the drum l to the whistle d, said tube being provided with an in-

termediate cock o, operated to open and close by a lever q to produce the signal, substantially as specified.

**No. 19,756. Saw Handle. (*Fût de Scie.*)**

Perry Fraizer, Mount Summit, Ind., U. S., 8th July, 1884; 5 years.

*Claim.*—1st. In a saw handle, a P-shaped loop-bolt formed in a single piece adapted to encircle or clasp the end of the saw-plate, and means for securing the same to said saw-plate, whereby the handle is set at right angles with the cut of the saw instead of in a line therewith, substantially as set forth. 2nd. In a saw handle, the combination of the usual handle, the washer upon the lower end of said handle, the T-shaped loop-bolt formed in one piece with the arms at substantially right angles with the shank, and said shank extending up through said washer into said handle where it engages with a suitable fastening therein, substantially as set forth. 3rd. The combination of the saw handle A, the washer B upon the lower end of said handle having slots in its lower face, and a P-shaped loop-bolt C formed in one piece, the shaft of which is adapted to enter a longitudinal hole in the lower end of the handle, and means for securing the bolt in said hole, whereby said handle may be securely clamped to said saw, substantially as set forth. 4th. The combination, with the saw handle A, of a conical washer B at the lower end of said handle, said washer being slotted upon its lower face, and a T-shaped loop-bolt made in one piece and having a screw-threaded shank adapted to engage with a nut arranged in a longitudinal perforation in the end of said handle, substantially as described and for the purposes specified.

**No. 19,757. Apparatus for Transmitting Differential Rotary Motion. (*Appareil pour Transmettre le Mouvement Rotatoire D'ferentiel.*)**

George F. Clemons, Springfield, Mass., U. S., 8th July, 1884; 5 years.

*Claim.*—1st. A new mechanical combination and movement, for transmitting differential rotary motion of machines, consisting of the hereinbefore shown and described, stud-pins and disk-holes, or their shown and described mechanical equivalents, the stud pins and cams or eccentrics, arranged and operating in combination with rotative bodies of mechanisms, substantially as hereinbefore shown and described. 2nd. The combination of the shaft A having therein the eccentric B, the fixed gear D, the gear C carrying the stud-pins G, G, the resistance wheel E having disk-holes F, F, in which said stud-pins work to connect and transmit rotary motion from the gear C to the wheel E, substantially as shown and described and for the purposes set forth. 3rd. The combination consisting of the shaft A, eccentric B, the gear C with arms L, L carrying the stud-pins G, G, the fixed gear D with arms l, k, the resistance wheel E having a chain wheel M and arms O, O carrying the cams or eccentrics H, H, the frame-piece connected to arms l, k by the cross-bars S, U, the suspending hook, the hand chain-wheel W, all substantially as hereinbefore shown and described and for the purposes set forth.

**No. 19,758. Car Wheel and Axle. (*Roue et Essieu de Char.*)**

Samuel J. Stevenson, Philadelphia, Pa., U. S., 8th July, 1884; 5 years.

*Claim.*—1st. An axle having lubricant ducts, in combination with wheels fitted independently on said axle, and formed with pockets which extend transversely on the inner faces of the hubs from end to end thereof, substantially as and for the purpose set forth. 2nd. A wheel having pockets which extend radially on the ends of the hub thereof, and collars connected with the axle fitted in recess in said ends, substantially as and for the purpose set forth. 3rd. An axle having a lubricant duct, a loose fitted wheel and collars connected with the axle fitted in recesses in the ends of the hub, said wheel having pockets which extend transversely on the inner face of the hub and pockets which extend radially on the ends of the hub and join said transversely extending pockets, substantially as and for the purpose set forth.

**No. 19,759. Skate Sharpener. (*Rémouleur de Patin.*)**

Xavier St. Pierre, Osceola, Nev., U. S., 8th July, 1884; 5 years.

*Claim.*—1st. The skate-sharpening file B having a stud d<sub>1</sub> and flat or rounded sides or edges, in combination with the holder A having end pieces b, b<sub>1</sub>, one being apertured, substantially as and for the purpose set forth. 2nd. The file B formed with the stud d<sub>1</sub> in combination with the holder A having cheek pieces a, and lip b and end piece b<sub>1</sub> having aperture d, substantially as and for the purpose set forth. 3rd. The holder A having guiding or cheek pieces a, lip b and end plate b<sub>1</sub>, in combination with the file B having flat or rounded edge or sides and formed with the stud a<sub>1</sub> at one end, substantially as and for the purposes set forth. 4th. In a skate-sharpening device, the holder A struck up of sheet metal, with the cheek pieces a, a, the end pieces b, b<sub>1</sub>, one having an aperture d and with the end lapping lips c all in one piece, in combination with the file B having the stud d<sub>1</sub>, substantially as and for the purpose set forth.

**No. 19,760. Valve for Water Closets, &c. (*Valve pour Cabinets à Veau, &c.*)**

William Scott, Malden, Mass., U.S., 8th July, 1884; 5 years.

*Claim.*—1st. The combination, with the outlet or discharge of a tank for water or other liquid, of a chambered valve which has openings or passages for the ingress and egress of the liquid of the tank and of air, and is otherwise constructed and arranged that, seated, said discharge is closed, and, raised, said discharge is opened, and from the then ingress of liquid, said valve is again seated, emptying its contents, substantially as described for the purpose specified. 2nd. The combination, with the seat H of the outlet or discharge B, of a

tank for water or other liquid, of a chambered valve D which has openings or passages J, K for the ingress and egress of the liquid of the tank and of air, and is provided with a stem P suitably guided, all so that when said valve is seated said discharge is closed, and, when raised, said discharge is open, and from the then ingress of liquid from the tank, said valve is again seated, emptying its contents into said discharge, substantially as described for the purpose specified. 3rd. The combination, with the outlet or discharge of a tank for water or other liquid, of a chambered valve which has openings or passages J and K for the ingress and egress of the liquid of the tank and of air, and the port M of the air passage made downwardly inclining, and all otherwise constructed and arranged that, seated, said discharge is closed, and, raised, said discharge is opened, and from the then ingress of liquid said valve is again seated, emptying its contents into said discharge, substantially as described for the purpose specified. 4th. The combination, with a tank for liquid, an outlet pipes for the liquid and a valve to said outlet pipe, of two pivoted lever for operating said valve, one of said levers being constructed to slide at its pivotal point and to act on the other lever to open the valve when moved in one direction, and when moved in the other direction to be shifted at its pivotal point, substantially as described. 5th. A crank lever N having arm *d* connected to a valve, of a tank for water or other liquid, and arm *l* rounded at its outer end, in combination with an operating crank lever Q having arms *t* and *u*, its arm *t* at its outer end rounded, and an elongated fulcrum-bearing *w*, substantially as described for the purpose specified. 6th. The pivoted lever N having long arm *d* and short arm *l* rounded at its free end, in combination with a lever Q having its short arm *t* rounded at its free end and formed with an elongated fulcrum-bearing *w*, whereby said levers are adapted to be operated, substantially as described. 7th. The combination, with a tank for liquid and outlet pipe for the liquid, a float valve for closing said outlet pipe provided with an air inlet pipe and a liquid inlet, the liquid inlet being located at such point that, when the valve is unseated, the liquid will pass from the tank into said valve, and, when seated, the liquid will pass therefrom into the outlet pipe of the pipe, substantially as described.

### No. 19,761. Apparatus and Case for Embalming Dead Bodies. (*Appareil et Boîte pour Embaumer les Corps.*)

Arthur S. Lovett, Erie, Penn., U.S., 8th July, 1884; 5 years.

*Claim.*—1st. The combination, in a case for enclosing and embalming dead bodies, of a gas-tight bottom B with a flexible gas-tight cover A provided with a frame C secured to the lower edge thereof, adapted to be clamped to the bottom B or removed therefrom, the packing D and clamps *b*, *b'*, all operating together substantially as and for the purpose set forth. 2nd. The combination, in a gas-tight case, for treating dead bodies, of the flexible cover A, the gas-tight bottom B, the packing D, the bellows J, the escape cock *g* and escape pipe *G*, all constructed and operating substantially as and for the purpose set forth. 3rd. The combination, in a case for embalming dead bodies, of the following elements: a bottom B mounted upon folding legs E, a flexible gas-tight cover A arranged to be clamped to the bottom B, and means for supplying gas to and expelling the same from said case, all arranged and operating substantially as and for the purpose set forth.

### No. 19,762. Railway Signal. (*Signal de Railroute.*)

Bert Buys and Frank Wilcox, Reese, Mich., U. S., 8th July 1884; 5 years.

*Claim.*—The combination of the vertical shaft A, for operating a visual signal, the horizontal plate C forming a step for the shaft and carrying a series of fixed electrical contacts connected with a telegraph line, and an arm carrying a contact point and attached to said shaft, and constructed to both operate said shaft and signal and move said contact point over the fixed contacts as the visual signal is moved, substantially as described.

### No. 19,763. Textile Fabric. (*Tissu Textile.*)

Morris H. Pulaski, Philadelphia, Tenn., U.S., 8th July, 1884; 5 years.

*Claim.*—1st. As a new article of manufacture, a web of embroidery having the scalloped or curved edges of the embroidered part weakened, as described, and for the purpose intended, substantially as described. 2nd. As a new article of manufacture, a web of embroidery having the edges of each embroidery strip perforated, scored, indented or cut contiguous to and around the curves, and scallops constituting the lower edge of each embroidered strip of such web, as and for the purpose intended, substantially as described. 3rd. As a new article of manufacture, the within-described separable web of embroidery indented, scored or perforated contiguous to and around the curves or scallops of the edge of each strip of embroidery composing such web, whereby each of said strips is readily separable from the main fabric around said scallops of said edges, and when so detached each strip is practically cut out around the curves, scallops of the edge of the embroidery, substantially as described. 4th. A separable web of embroidery consisting of strips of embroidery, the lower edge of each of said strips being a series of scallops, curves, or ellipses, and having surrounding such curves, ellipses, or scallops, a weak frangible line, whereby each strip may be detached from the web in a finished condition, with its scallops, curves, or ellipses cut out ready for use, substantially as described.

### No. 19,764. Carriage Spring. (*Ressort de Voiture.*)

Henry W. Hamille, Norfolk, N.Y., U.S., 8th July, 1884; 5 years.

*Claim.*—The combination of the end springs A, A<sub>1</sub>, side bars *c*, *c'* and side springs B, B<sub>1</sub>, connected and arranged as set forth for the purpose described.

### No. 19,765. Pump. (*Pompe.*)

John A. Butler, Brantford, Ont., 12th July, 1884; 5 years.

*Claim.*—1st. In a submerged pump, the combination of cylinder A,

with valve D, and water-passage G having valve H at the bottom of it, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of handle N, with fulcrum M working between lugs in cap K, also set screw O, substantially as and for the purposes hereinbefore set forth. 4th. The drip valve Q, having valve R, substantially as and for the purposes hereinbefore set forth.

### No. 19,766. Carriage Thill Coupling.

(*Arçon de Limonière de Voiture.*)

Nelson A. Primus, Somerville, Mass., U.S., 12th July, 1884; 5 years.

*Claim.*—1st. The combination of a clip and bearing piece B provided with a screw tension C extending from it, as shown, with the journal carrier D and the journal E, arranged as represented, such carrier having the screw tenon extending through it, and also having the journal projected within the bearing piece, and all being substantially as represented. 2nd. The combination of the bearing plate H, its screw I and nut K, with the bearing piece B and with the carrier D, and the journal E arranged with and adapted to the bearing piece, substantially in manner as set forth; the said plate H being to operate, as described, against the elastic or rubber block G placed against the thill iron head and in the bearing piece and against the plate H in the manner as specified.

### No. 19,767. Horse Collar Fastener.

(*Croissant de Collier de Cheval.*)

Edward S. Piatt, Norham, Ont., 12th July, 1884; 5 years.

*Claim.*—1st. A metallic casing upon each end of a horse collar, parted below, conforming to the outline of the collar and secured thereto, said casings having each a solid face, one of which is provided with buttons having recessed necks adapted to enter into slots in the face of the opposite part, and being locked therein by the narrower lower portion of said slots engaging the shoulder of said buttons. 2nd. The casing A having a face A<sub>1</sub> and provided with slots *a*, wide at the top and narrow below, and the casing B having a face B<sub>1</sub> provided with buttons *b* having shoulders *b'* adapted to enter the wider part of the slots *a* to be engaged and retained by the narrower lower portion thereof, all substantially as described and for the purpose set forth.

### No. 19,768. Spring Bed. (*Sommier Elastique.*)

Peter Fraser, Hamilton, Ont., 12th July, 1884; 5 years.

*Claim.*—1st. In a bed bottom, the inner portion of the sides and ends A, B formed with a recess *a* and projections *b*, *c*, substantially as and for the purpose specified. 2nd. In combination with the sides and ends A, B of a bed bottom, of the staples B inserted therein, so as to leave a space *a* for the top coil of the spring to slide in behind the staples, substantially as specified. 3rd. The combination of the spring C, frame provided with recesses *a*, projections *b*, *c*, slots D and stationary and swinging post H, substantially as and for the purpose specified. 4th. The combination, with a frame A constructed with recess *a*, projections *b*, *c*, of the spring C, slots D and webbing I, to fill the blanks between the spaces, substantially as described.

### No. 19,769. Hame. (*Attelle.*)

James McCurdy, Belleville, Ont., 12th July, 1884; 5 years.

*Claim.*—1st. In an automatic hame fastener, the combination of the lock *c*, jaws *d*, spring *g* and tube or socket *f*, substantially as and for the purpose hereinbefore set forth. 2nd. The nipple *j*, in combination with the lock *c*, jaws *d*, spring *g* and tube or socket *f*, substantially as and for the purposes hereinbefore set forth.

### No. 19,770. Improvement in the Manufacture of Sausages. (*Perfectionnement dans la Fabrication de la Saucisse.*)

Francis C. Ireland, Lachute Mills, Que., 12th July, 1884; 5 years.

*Claim.*—1st. The invention of a new kind of sausage made from meat and deicated wheat, in the proportions substantially as set forth, which causes the wheat to counteract the more indigestible portions of fatty meat, so as to produce a sausage more digestible and palatable that the affinity of any other known mixture in sausages.

### No. 19,771. Bicycle. (*Bicycle.*)

Thomas H. Robinson, Toronto, Ont., 12th July, 1884; 5 years.

*Claim.*—1st. A reach A provided with necks C and bent downwardly in between the said necks, the heads B to receive the said necks, in combination with the swivel-joint placed in the reach A and arranged to connect the front wheels of two bicycles together, substantially as and for the purpose specified. 2nd. In a reach arranged to connect the front wheels of two bicycles together, a swivel-joint so arranged that it cannot revolve entirely around, substantially as and for the purpose specified. 3rd. In combination, with the curved reach A arranged to connect together the front wheels of two bicycles, the curved plates F provided with straps and adjustably connected to the reach A by the clips G, substantially as and for the purposes specified. 4th. The forked bars E connecting the neck C to the sleeve *b*, in combination with the swivel-jointed reach A, substantially as and for the purpose specified.

### No. 19,772. Machinery for Knitting Rattan. (*Machine pour Tricoter le Rotin.*)

Edward L. Taft and Henry M. Rich Athol, Mass., U.S., 12th July, 1884; 5 years.

*Claim.*—1st. The combination of the stationary strand guide K and the looper F, the series of standards *e*, slides *g*, U shaped tongues *h*,

the series of springs *f*, the movable loop holding abutment *L* and the strand coverer *M* provided with mechanism for operating them, substantially as set forth. 2n. The combination of the wedge pointed stud *R* having mechanism for operating it, substantially as described, with the stationary strand guide *K* and the movable looper *F*, the series of U-shaped tongues, their carrying slides and the furcated sustaining bars *a* thereof, the springs, the movable loop holding abutment *L* and the strand coverer *M* provided with mechanism for operating them, essentially as represented. 3rd. The combination of the metallic frame *H* having toothed racks, as set forth, and the carriage *I* having a cranked shaft *a* and pinions *v*, *w* to operate with the said racks, as described, with the stationary strand guide *K* and with the series of slides *b*, standards *c*, curved springs *f*, sliders *g*, U-shaped tongues *h*, the movable looper *F*, loop holding abutment *L* and strand coverer *M* having mechanism for operating them substantially as set forth. 4th. The combination, with the chair seat and operating mechanism, substantially as described, consisting of the spider the pendulous arm the vertical slide and adjustable post arranged and adapted as set forth, with mechanism, substantially as represented, for knitting work or a chair back between the posts of a chair, as explained.

### No. 19,773. Buggy Gear. (*Train de Voiture.*)

Henry Cantelon, Clinton, Ont., 12th July, 1884; 5 years.

*Claim.*—1st. In the combination of a buggy or light wagon, in combination with truss-bars having equalizers *c*, supports for truss-bars and clips *3*, fastened to rear axle and head block by means of the clip springs *e*, side bars *i* which extend from, and are fastened to lower parts of support for truss-bar and clips *b*, when the said clips are fastened to axle and head block *g* Fig. 2, as set forth and described. 2d. In the combination of a buggy or light wagon, in combination with truss-bars *a* having equalizers *c*, support for truss-bars and clip *B* fastened to rear axle and head block by means of the clip springs *e*, side bars *i* which extend from, and are fastened to lower parts of supports truss-bars and clips *b*, box *f* supported on the springs by body loops *d*, steps *p* and drop-reach *n*, as and for the purposes set forth and described.

### No. 19,774. Store Window. (*Vitrine de Boutique.*)

Lyman C. Bailey, Calais, Me., U.S., 12th July, 1884; 5 years.

*Claim.*—A store or show window, consisting of the fixed exterior window *a* having the air openings *c* and the air deflecting plate *d*, arranged before said openings, to direct the incoming air along the interior window or partition *e* having the openings *i* to cooperate therewith, substantially as shown and for the purposes described.

### No. 19,775. Oil Can. (*Bidon à Huile.*)

Robert English, Austin, Texas, U.S., 12th July, 1884; 5 years.

*Claim.*—The combination, with the can *A* having a screw-threaded opening, of a spout provided upon its sides within the can *A* with a series of openings, and provided at its lower end with a plug *d* and an exteriorly screw-threaded cap, rigidly mounted on said spout and adapted to engage the screw-threaded mouth of the can *A*, as set forth.

### No. 19,776. Clock. (*Horloge.*)

Telesphore Tremblay, Montreal, Que., 12th July, 1884; 5 years.

*Claim.*—1st. The combination of the casing *A*, hub *B*, disk *D* having perforations *G*, hand *M*, axle *C*, hand *N*, plate *A* provided with opening *I* and centre opening, and glass *L*, said glass being provided with dial marks, as described, and pins *K*, the whole constructed, arranged and operating substantially as described. 2nd. The combination of the hub *B*, disk *D* having perforations *G*, as described, plate *H* provided with opening *I* and pins *K*, substantially as described and shown.

### No. 19,777. Method of and Apparatus for Printing with Metal Engravings direct from the Cylinders of Rotary Web Printing Machines. (*Mode d'Impression en Taille douce directement des Cylindres de Machines Rotatives à Imprimer à Papier Continu, et appareil pour cet objet.*)

Thomas Shields, Bradford, Eng., 12th July, 1884; 5 years.

*Claim.*—Producing a composite curved printing surface suitable for rotary and other machines, such surface consisting in part of a cast obtained by the papier-mâché process of stereotyping, and in part of any kind of metallic printing surface, suitable for printing by the letterpress method.

### No. 19,778. Closet Ventilator. (*Ventilateur de Latrine.*)

John H. McGovern and James H. Willson, Detroit, Mich., U.S., 12th July, 1884; 5 years.

*Claim.*—1st. In combination with the seat pipe and soil pipe of a water-closet discharging into the atmosphere, a ventilating apparatus attached by means of which a downward current of air is compelled through such soil pipe, substantially as and for the purposes described. 2nd. In combination with the seat pipe *B*, the annular chamber *C* terminating in soil pipe *D*, and the air pipe *E* connecting with such annular chamber and carrying upon its upper end a curved bell-mouth, the presentation of which is governed by the position of the vane *G*, the parts being constructed, arranged and operating substantially as and for the purpose specified.

### No. 19,779. Reversible Shears.

(*Forces Reversibles.*)

John L. Starks, Sharon Grove, Ky., U.S., 12th July, 1884; 5 years.

*Claim.*—1st. In scissors and shears, the combination, with one of the blades provided at its lower end with a tubular extension having slots formed upon opposite sides of the same at their upper ends, of a detachable handle having a coiled spring mounted thereon near the upper end thereof, and a cap adapted to fit the end of said handle upon the outer side of the tubular extension, substantially as set forth. 2nd. In scissors and shears, the combination, with one of the blades provided at its lower end with a tubular extension having slots at its upper end and a recess formed adjacent thereto upon the blade, said extension being also provided with a seat upon its inner side, near the upper end of the same, of a detachable handle, the end of which is squared; said handle being also provided with a coil spring bearing against a seat upon said handle at one end, and against the seat of the tubular extension of the other end, and a cap provided with an outwardly projecting lug and adapted to be rigidly mounted on the squared end of the handle, substantially as set forth.

### No. 19,780. Process for Preserving Eggs.

(*Procédé de Conservation des Oeufs.*)

Frank J. Praddex, Albany, N.Y., U.S., 12th July, 1884; 5 years.

*Claim.*—The process for preserving eggs, which consist in, first, subjecting the eggs to the action of gentle heat, to expel a portion of the air and gases therefrom, as herein described, and, second, in applying to their shells a coating consisting of a cold solution of hard, drying, adherent material, that will strengthen their shells and render them impervious to air, substantially as herein specified.

### No. 19,781. Steam Trunk Lid Press.

(*Presse de Dôme de Vapeur.*)

William E. Lockman, St. Louis, Mo., U.S., 14th July, 1884; 5 years.

*Claim.*—The combination, in a trunk lid press machine, of two hollow cast-iron steam chambers *A* and *B*, the surface of one being concave and the surface of the other convex, with steam connections *E* and *C* for the purpose of giving form and shape to the boards out of which trunk lids are made, and while form and shape are being given to the boards aforesaid, the same are by the heat of the steam-chambers rendered perfectly dry and free from moisture without liability to warp or change, all substantially as set forth.

### No. 19,782. Fire-Escape. (*Sauveteur d'Incendie.*)

Colin Kennedy, Glengarry, Ont., 14th July, 1884; 5 years.

*Claim.*—1st. In combination with the rope *A*, the clutches *B* provided with a stirrup rope *C*, as set forth and for the purpose described. 2nd. In combination with the rope *A*, the brake ring *D* provided with a tongue *E* and sling *F*, as set forth and for the purpose described.

### No. 19,783. Mowing Machine. (*Fauçonneuse.*)

Joseph Savoie, St. Germain de Grantham, Que., 14th July, 1884; 5 years.

*Claim.*—1st. The axle *A* mounted upon wheels *W*, *W*<sub>1</sub>, and connected thereto by the sleeves *S*<sub>1</sub> keyed to the axle, and having ratcheted rims into which mesh spring ratchets pivoted to the spokes of the wheels, said axle carrying the draft pole *P* by means of a split sleeve *S*, and having journaled upon it a frame *B* *B*<sub>1</sub> *B*<sub>2</sub> to which is journaled the swivel-bar *D* having pivoted to it, at a right angle, the shoe *F* forming part of the finger-bar *F*, with knife *K*, the near wheel *W* having its rim formed into cams *c* to operate the rocking shaft *G*, which reciprocates the knife-bar by means of its crank. 2nd. The axle *A* having keys *a* engaging sleeves *S*<sub>1</sub>, in combination with the wheels carrying spring pawls *p*, engaging the ratcheted rims *s* in opposite directions. 3rd. The axle *A*, sleeve *S*, bars *B* and *B*<sub>1</sub> journaled upon the axle and forming a frame, in combination with the cutting mechanism. 4th. The wheel rim *W* having a continuous series of cams *c* formed upon one edge thereof, in combination with the rocking-shaft *G* having cranked end and carrying bowls *G*<sub>1</sub> upon a cross-arm secured to said shaft *G*. 5th. The frame *B* *B*<sub>1</sub>, swivel bar *D* journaled thereto, shoe *F*<sub>1</sub> pivoted to *D* and forming part of finger-bar *F*, knife-bar *K* having slotted head *k*, in combination with the rocking shaft *G*. 6th. The frame *B* *B*<sub>1</sub>, swivel bar *D* and finger-bar *F*, the rocking shaft *G* journaled upon the bar *B* and having notch *g*<sub>2</sub>, in combination with the spring *b*<sub>1</sub>. 7th. The finger-bar *F* having fingers *f*, with removable top plates *f*<sub>1</sub> secured to the fingers by screws *f*<sub>2</sub>, *f*<sub>3</sub>, said plates *f*<sub>1</sub> capable of being sharpened, and said two parts of the finger carrying between them the knife-bar *K*, having the under side of the knife edges ground bevel. 8th. The axle *A*, frame *B* *B*<sub>1</sub> and swivel bar *D* having lever *d*, connecting rod *d*<sub>1</sub> and hand lever *L* with spring pin (pivoted to segmental headed bracket *L*<sub>1</sub> on bar *B*. 9th. The frame *B* *B*<sub>1</sub> and swivel bar *D* carrying swivel arm *I*, the lever *J* pivoted thereto, and connected to the shoe *F*<sub>1</sub> by the rod *J* at one end, the other end connected to the point of the shoe *F* by a chain *J*<sub>2</sub>, and by a chain *J*<sub>1</sub> to the draft-bar *H*<sub>2</sub>. 10th. The whiffle-tree *H* having bail *h*, the draft bar *H*<sub>1</sub> guided between plates *h*<sub>2</sub> and having catch plate *h*<sub>1</sub> and connected by a chain *H*<sub>2</sub> to the bar *B*<sub>1</sub>, in combination with the foot lever *H*<sub>3</sub> provided with ratchet teeth to engage and retain the catch plate *h*<sub>1</sub> forward. 11th. The whiffle-tree *H*, draft bar *H*<sub>1</sub>, chain *H*<sub>2</sub> and lever *H*<sub>3</sub>, in combination with the foot lever *M*, chain *J*<sub>2</sub>, lever *J* supported upon swivel arm *I*, and connected by chain *J*<sub>3</sub> and rod *J*<sub>1</sub> to the shoe *F*<sub>1</sub>. 12th. The combination of the frame *B* *B*<sub>1</sub> and the cutting apparatus connected thereto by means of the swivel bar *D*, the adjusting motion for the finger-bar consisting of the lever *d*, rod *d*<sub>1</sub> and lever *L*, the lifting and tilting motion, consisting of the swivel-arm *I*, lever *J*, rod *J*<sub>1</sub>, chains *J*<sub>2</sub>, *J*<sub>3</sub> and *H*<sub>2</sub>, draft bar *H*<sub>1</sub>, lever *H*<sub>3</sub> and whiffle-tree *H*. 13th. In combination, with the draft pole *P*, the guide-plates *h*<sub>2</sub>, draft bar *H*<sub>1</sub>, pulley *H*<sub>4</sub> and lever *H*<sub>3</sub>. 14th. In combination with the draft pole *P*, the chain *H*<sub>2</sub> and the foot lever *M*. 15th. In combination, with the draft pole *P*, the



split sleeve S, tool-box T, foot-plate N and seat O, all substantially as described and for the purpose set forth.

### No. 19,784. Axle Lubricator. (*Boîte à Graisse.*)

Albert D. Howe, Coshocton, Ohio, U.S., 14th July, 1884; 5 years.

*Claim.*—As an improved article of manufacture, the herein-described self lubricating axle-box formed with the exterior raised portion O arranged longitudinally and terminating at the inner end of the box, the concealed chamber or reservoir L formed in the interior portion of the box at the projection O, the channel N extending through the projecting rib or enlargement O, the channel N extending at the inner end of the box down through the rib and into the spreading reservoir, and the longitudinally-disposed interior groove M leading from the spreading reservoir, as set forth.

### No. 19,785. Axe Blade. (*Hache.*)

Chapin C. Brooks, Lancaster, N.H., U.S., 14th July, 1884; 5 years.

*Claim.*—As an improvement in chopping axes, the metallic blade provided with an eye d through it, and having its spread or extended cutting edge constructed to present a double or reverse obtuse figure *b c a e b*, in side up of straight and diagonal lines *c, c*, between the centre or joint A and corners *b, b* of said edge, substantially as shown and described.

### No. 19,786. Arrangement of Electrical Circuits. (*Disposition des Circuits Electriques.*)

Frederick N. Gisborne, Ottawa, Ont., 14th July, 1884; 5 years.

*Claim.*—1st. The arrangement and combination of two or more wires, of an electrical circuit insulated preferentially with inorganic matter and twisted throughout a part or the whole of their length, substantially as shown and described and for the purpose set forth. 2nd. The arrangement and combination of any number of insulated electrical circuits twisted round each other, as described, and placed either parallel with or wound spirally round a central insulated core, which may be used as a ground wire or with earth plates, as shown and described for the purpose set forth.

### No. 19,787. Cartridge Loading Machine.

(*Machine à Charger les Cartouches.*)

Franklin L. Chamberlin, Cleveland, Ohio, U.S., 24th July, 1884; 5 years.

*Claim.*—1st. In a machine for filling cartridges, the combination, with a shell-feeder and an intermittently-rotating device carrying shell-holders, of a powder-container, a wad-feeder and a shot-feeder and means for automatically actuating the same, whereby the shells are fed and filled, substantially as set forth. 2nd. In a machine for filling cartridges, the combination, with the main structure thereof and a cross-head arranged to reciprocate upon said structure, of a rotary crimper-rod carried upon said cross-head and provided at its lower end with devices for automatically embracing the sides of the shell, substantially as set forth. 3rd. In a machine for filling cartridges, the combination, with the main structure thereof, of a reciprocating cross-head and a yielding marker adapted to be actuated thereby, and means for holding the shell during the operation of marking, substantially as shown and described. 4th. In a machine for filling cartridges, the combination of the main structure thereof, with the reciprocating cross-head, a punch adapted to be actuated thereby, and a support for the shell, the said punch being adapted to enter the shell and force the primer therefrom, substantially as shown and described. 5th. In a machine for filling cartridges, the combination, with the main structure thereof, of an actuating cross-head or equivalent device, and means for operating the same, of the shell feeder, the punch adapted to enter the shell and remove the primer, the prime-set adapted to enter the shell, the automatic prime feed tube, the yielding seat to receive the shell, whereby the primer is fixed thereto, the automatically-discharging powder-containers, the wad-feeder, the automatically-discharging shot-container, the crimper mechanism adapted to act upon the periphery of the shell to crimp the same, the wad-marking device and devices for discharging the completed cartridge, the said several devices here named being arranged and adapted to be automatically operated in proper order, substantially as shown and described. 6th. In a machine for filling cartridges, the combination, with the main structure, a reciprocating cross-head or equivalent device mounted thereon, and the connections for actuating the same, of a rammer adjustably connected to said cross-head and arranged to adjust the pressure and maintain the uniformity of the same, substantially as set forth. 7th. In a machine for filling cartridges, the combination, with the main structure thereof, and a reciprocating cross-head or equivalent device, of the adjustable rammer provided with the slip-joint and springs, whereby any excess of pressure upon the parts may be relieved, substantially as and for the purpose set forth. 8th. In a cartridge-filling machine, wad-holders, the cases of which are provided with elastic parts adapted to expand or open sufficiently to receive wads singly or in quantities thrust in at the sides of the holder, substantially as and for the purpose set forth. 9th. In a cartridge filling machine, wad-holders adapted to receive wads in quantities through the sides by means of the elasticity of the parts, and so constructed and arranged that the wads in the holder are always exposed to the view of the operator, substantially as described and for the purpose specified. 10th. In a cartridge-loading machine provided with wad-holders, adjustable passage-ways through which wads may be pushed from the holders in desired quantities, substantially as and for the purpose set forth. 11th. In wad-holders for a cartridge-loading machine provided with adjustable passage-ways through which wads are pushed from the wad-holder, movable collars, gates or equivalent devices adapted to adjust the said passage-way to a desired size, substantially as described and for the purpose set forth. 12th. In a cartridge-filling machine, the combination, with the wad-holders and the wad-rammers, of the yielding fingers for holding the wads in position to be operated upon by the rammers, and the wad-

pushing slide provided with an extension for operating beneath the wad-holders, substantially as described. 13th. In a cartridge-filling machine, the combination, with the yielding wad-starting tube, of the wad-rammer, whereby the wad is accurately conveyed to and forced into the shell, substantially as set forth. 14th. In a cartridge-filling machine, the combination of the wad-holder, with the slide provided with an extension constituting a wad-pusher and mechanism for operating the same, substantially as set forth. 15th. In a cartridge-filling machine, the combination, with the wad-pushers, of the slotted levers connected therewith, the spindles to which said levers are attached and the levers mounted upon said spindles, and arranged to be engaged by the passing cartridge shells contained in the holders, whereby the slotted levers are actuated to move the slides or pushers when the shells are in the holders contiguous to the respective levers, substantially as described and for the purpose specified. 16th. In a cartridge-filling machine, provided with gates or valves for measuring and discharging powder and shot, the secondary chamber provided with elastic filing, substantially as shown and described. 17th. In a machine for filling cartridges, the combination, with the shot or powder container and the means for automatically opening and closing the same, of the lever secured to the said container and adapted to be actuated by the shell to be filled, whereby the device which opens the cut-off valve in the container are made to engage each other and the valve opened, substantially as described. 18th. In a machine for filling cartridges, the combination, with the main structure thereof, of the intermittently-rotating disk mounted upon a suitable column and adapted to support the holders and to receive the said motion through the action of a rotating shaft provided with arms or levers which engage recesses or holes in the underside of the said disk, substantially as described. 19th. In a machine for filling cartridges, the combination, with the intermittently-rotating disk provided with holes or notches on the underside thereof, of the rotating shaft provided with radial levers or arms, and the cam for actuating and stopping the said disk, substantially as described. 20th. In a machine for filling cartridges, the combination, with the main structure thereof, of the spider mounted upon the central column of the main structure and provided with radial arms or levers arranged to support the powder and shot-discharging devices, and the wad-pushers, substantially as shown and described. 21st. In a machine for filling cartridges, the combination, with the main structure thereof, the hollow shaft, the bolt therein and the nut connecting the same two together, of the spider and the device for connecting the same with the bolt, substantially as shown and described. 22nd. In a machine for filling cartridges, the combination, with the cartridge-carrier provided with a cut-off arranged to receive, retain and discharge the cartridges one at a time, of a cartridge-guiding tube arranged to receive the cartridges from the carrier and to deliver them to the cartridge-holders, substantially as shown and described. 23rd. In a machine for filling cartridges, the combination, with the cartridge-carrier provided with a cut-off and means for actuating the cut-off, of a cartridge-guiding tube adapted to receive them from the carrier to deliver them to the holders, substantially as shown and described. 24th. In a machine for filling cartridges, the combination of the inclined cartridge-carrier, with the transverse rock-shaft having arms extending therefrom, and the cut-off device secured thereto, and means for automatically actuating the same, substantially as described. 25th. In a machine for filling cartridges, the combination of the slotted actuating rod, the rock-shaft, its extending arms and the cut-off device secured thereto with the two-part guiding tube adapted to engage one of said arms, and the intermittently rotating disk provided with shell-holders, the said devices being constructed and arranged so as to cooperate and properly conduct, discharge and receive the shells, substantially as shown and described. 26th. In a cartridge-filling machine, the combination, with the main structure and a reciprocating cross-head mounted thereon, of the crimper rod provided with the spiral head the thimble E, situated above the head, and a coiled spring depending from the thimble and arranged to engage said head, substantially as set forth. 27th. In a cartridge-filling machine, the combination, with the main structure and a reciprocating cross-head mounted thereon, of the crimper-spindle provided with a slip-joint, a spiral spring attached thereto and jaws arranged to bear upon said spring so as to adjust its tension, substantially as described. 28th. In a cartridge-filling machine, the combination, with the main structure and a reciprocating cross-head mounted thereon, of a crimping device provided at one end with a recess of the proper configuration to crimp the cartridge shell, and at its opposite ends with quick threads which latter engage with similar threads in the cross-head, substantially as set forth. 29th. In a cartridge-filling machine, the combination of the main supporting structure, a crimping device having a quick thread upon its spindle, a thimble E, a worn-head upon said spindle below the thimble, a spiral spring depending from the thimble and engaging said head, and a reciprocating cross-head or equivalent device provided with the quick threads adapted to register with the quick threads in the crimper spindle, substantially as set forth. 30th. In a cartridge-filling machine, the combination, with the table provided with the holders, of the orifice *a* and the incline *a'*, of the disk provided with the holders, substantially as shown and described. 31st. In a cartridge-filling machine, the combination, with the intermittently rotating disk, the cartridge-holders and the crimping device, of the pivoted toothed lever and the fixed dog, whereby the shell is prevented from revolving during the operation of crimping, substantially as shown and described. 32nd. In a cartridge-filling machine, the combination, with the intermittently rotating disk, devices for operating the same and the cartridge holders attached to said disk, of the pivoted toothed lever and the fixed dog, said lever and dog being arranged to receive the cartridge shell between them and to prevent said shell from revolving during the operation of crimping, substantially as shown and described. 33rd. In a cartridge-filling machine, the combination, with the main structure, of a rotating disk mounted upon said structure and provided with a series of recesses, a pivoted spring actuated lever arranged to engage by its free end with said recesses and devices for throwing said lever out of engagement with said recesses, for the purpose set forth. 34th. In a machine for filling cartridges, the combination, with the main structure and a table mounted thereon and provided with an aperture, of a reciprocating cross-head and a punch attached thereto arranged to enter the cartridge shell and to force

the priming therefrom through the aperture in the table, substantially as shown and described. 35th. In a cartridge-filling machine, the table provided with a recess, an anvil located in said recess, a feeding device for conducting the primings to the anvil and a yielding bearing for said feeder, in combination with the reciprocating primer setting punch arranged to enter the cartridge shells and affix the primings thereto, substantially as shown and described.

**No. 19,788. Compound for Electric Wire Insulators, Pipes, Posts, &c.** (*Composition pour Isolateurs de Fils Electriques, Tuyaux, Poteaux, &c.*)

John F. Martin, Chicago, Ill., U. S., 14th July, 1884; 5 years.

*Claim.*—A compound, for the purposes herein described, consisting of a base composed of asphaltum and marble-dust, substantially as set forth.

**No. 19,789. Button Fastener.** (*Queue de Boulons.*)

Charles L. Farnsworth, Detroit, Mich., U. S., 14th July, 1884; 5 years.

*Claim.*—As an improved article of manufacture, the herein described button-fastener, consisting of a single piece of wire bent to form a base, with its extremities twisted about each other over the base after the same is formed, said extremities beyond the twist terminating in hooks, which stand side by side with their ends turned in opposite directions, substantially as described.

**No. 19,790. Glove Fastener.** (*Fermeoir de Gant.*)

William F. Ware, New York, N. Y., U. S., 14th July, 1884; 5 years.

*Claim.*—1st. In a fastener, of the character herein set forth, the head pointed at one end and gradually enlarged towards the other, said head being mounted upon the shank and projecting beyond it on both sides and at the point, substantially as set forth. 2nd. In a fastener, of the character herein set forth, the head mounted upon the shank, projecting beyond the shank both sides and at the point, and having the pointed portion curved upwardly upon its underside, substantially as set forth. 3rd. The herein described improved fastener composed of the head, the shank, and means for affixing them upon the glove, said head being pointed at one end and gradually widening towards the other, terminating in a rounded or globular part projecting beyond the shank on both sides and at the point, and adapted to be forced through the button hole, substantially in the manner set forth.

**No. 19,791. Horse Shoe.** (*Fer à Cheval.*)

Lyman Carrier, Minooka, Ill., U. S., 14th July, 1884; 5 years.

*Claim.*—1st. The combination of the shoe S having the two integral toe flanges c, c', with the removable toe calk e and rivets t, t', as and for the purpose set forth. 2nd. The combination of the shoe S having the mortices D, D', with the removable heel calks a, a' and rivets n, n', as and for the purpose set forth. 3rd. The combination of the shoe S having the integral flanges c, c', mortices D, D' and ridges V, V' on its upper face, with the removable calks e and a, and rivets n and t, as and for the purpose set forth. 4th. The shoe S having the integral concentric sharpened continuous ridges V, V' on its upper face, as and for the purpose set forth. 5th. The combination of the shoe S with the removable calks e and a, having the rivet holes out of line with those in the shoe, so the rivets n and t will draw the calks into the shoe, as and for the purpose set forth.

**No. 19,792. Improvements in Roads.** (*Perfectionnements dans les Routes.*)

Lansing De Forest, Janesville, Wis., U. S., 14th July, 1884; 5 years.

*Claim.*—A road provided with a track or tracks composed of exterior and interior boards B, C of unequal thickness, suitable clamps or bolts for securing them together with the filling or packing of rubber between them, substantially as shown and described.

**No. 19,793. Towel-Holder.** (*Porte-Serviette.*)

George S. Gifford, Syracuse, N. Y., U. S., 14th July, 1884; 5 years.

*Claim.*—The combination, with the spring arms a, a' and their clasp r, of the concavo-convex shells s, s' formed on the ends of said arms, and the separate bulb c adapted to be enclosed between the said shells, substantially in the manner described and shown, for the purpose specified.

**No. 19,794. Cinder Sifter.** (*Crible à Cendres.*)

James Carmichael, Oshawa, Ont., 16th July, 1884; 5 years.

*Claim.*—1st. The semi-circular ends C connected together by the netting D and bottom F, in combination with the slating pieces of netting H, arranged substantially as and for the purpose specified. 2nd. The semi-circular ends C connected by the netting D and F, in combination with the wires I, substantially as and for the purpose specified. 3rd. A sifter composed of the netting D and F having the hole G made in the centre of the latter, in combination with the brackets J fixed to the ends C, and having notches J' made in it to receive the wedge K, the board L fixed to the said bar and arranged with the notch M to secure the ash-pan E substantially as and for the purpose specified. 4th. The brackets J fixed to the ends C and having the notches J' cut in them, as specified, in combination with the bar M having projecting lips k formed on its end, to prevent the said bar from completely revolving in the notches. 5th. The brackets J fixed to the end C, and having the notch j' made in them, to receive the ends of the bar M, in combination with the board L fixed to the cross-bar I on the bar K, substantially as and for the purpose specified.

**No. 19,795. Machine for Bending and Forming Springs.** (*Machine pour Plier et Former les Ressorts.*)

George Norwood, Bridgeport, Ct., U. S., 16th July, 1884; 5 years.

*Claim.* 1st. In a spring binding and forming machine, the former bar constructed narrower at the bottom than at the top and clamped together, substantially as set forth. 2d. In a spring binding and forming machine, the former bars provided with detachable spring bottom sections and means for severing the bars at the desired adjustment, substantially as described. 3rd. In a spring binding and forming machine, a reciprocating carrier having pivoted thereto, presser bars adapted to be distended by the downward movement of the carrier, and thereby forced against the strip and spring, in combination with means for causing said bars to automatically act on the spring during the upward movement of said carrier, substantially as set forth. 4th. The bars J having detachable bottom pieces O, adjustable by means of screws R bearing against the pins P, in combination with the former pivoted L with the former pivoted presser bars Z provided with rolls A, reciprocating carrier T, and spring B bearing against the outer edges of said presser bars, substantially as set forth. 5th. The racked carrier, in combination with the pistons V on the driving shaft W, presser bars Z, springs B bearing against the outer edges of said bars, the former and former bars, substantially as and for the purpose set forth. 6th. In a spring binding and forming machine, the central former bar secured against all movement, except in a vertical plane, in combination with former bars arranged on each side thereof and inclined toward the bottom, and means for clamping said bars in proper position, substantially as set forth. 7th. In a spring binding and forming machine, a spring strip having a yielding connection at its extremities with a vertically reciprocating carrier frame, and held in constant contact with the presser bars, whereby the latter may operate to bend and form the spring without immediate contact against the same, substantially as described. 8th. In a spring binding and forming machine, jaws overlapping the former bars and secured thereto by means of bolt, passing through said jaws and bars, said bolt being provided with an elastic washer and a nut, as described, in combination with set screws passed through the lower extremities of said jaws and bearing against the bars, substantially as and for the purpose set forth. 9th. In a spring binding and forming machine, clips having fork-like projections adapted to be inserted through the former bars and bear directly upon the spring, substantially as set forth. 10th. In a spring binding and forming machine, the intermediate elastic strip of metal provided with perforations extending centrally throughout its length, and a channel in its under surface into which which said perforations lead, substantially as hereinbefore shown and described. 11th. The combination of the jaws E secured to the former bars by bolt F, elastic washer G, nut H and set screws I, substantially as set forth.

**No. 19,796. Metallic Packing for Piston and Valve Rods, &c.** (*Garniture Metallique pour Tiges de Pistons et de Soupapes, &c.*)

Charles T. Sleeper, Chicago, Ill., U. S., 16th July, 1884; 5 years.

*Claim.*—1st. In a metallic packing, the combination, with a box or casing and metallic packing rings contained therein, of a device for simultaneously contracting said packing rings, substantially as set forth. 2nd. In a metallic packing, the combination, with a casing or box and sectional metallic packing rings located therein, of followers engaging the rings at different points on their peripheries, and means for imparting simultaneous movement to all of said followers, substantially as set forth. 3rd. In a metallic packing, the combination, with a casing or box and sectional metallic packing rings located therein, of followers and a cam ring for contracting the packing rings, substantially as set forth. 4th. In a metallic packing, the combination, with a casing or box and metallic packing rings located therein, of radially adjustable followers, a cam ring for actuating said followers and worm gearing for rotating the cam ring, substantially as set forth. 5th. In a metallic packing, the combination, with a casing or box, and metallic packing rings located therein, of radially adjustable followers, and means for positively and simultaneously moving said followers, either inwardly or outwardly, substantially as set forth. 6th. In a metallic packing, the combination, with a box or casing and metallic rings located therein, of radially adjustable followers, bands interposed between the followers and packing rings, and a cam ring for actuating said followers, substantially as set forth. 7th. In a metallic packing, the combination with a box or casing, and metallic packing rings located therein, of radially adjustable followers and a cam ring, said followers and cam ring being connected by lugs and grooves, substantially as set forth. 8th. In a metallic packing, a box or casing made in two sections, in combination with a cam ring seated in an annular groove formed on the interior of said sections, substantially as set forth. 9th. In a metallic packing, the combination, with a box or casing, and a cam ring seated in an annular groove formed within the casing, said ring being provided with a segmental worm gear, of a worm shaft journaled in bearings formed in a projection formed on the box or casing, substantially as set forth. 10th. In a metallic packing, the combination, with a box or casing, and means for contracting the size of the packing rings, of annular ring bearings seated against the outer faces of the packing rings, substantially as set forth. 11th. In a metallic packing, the combination, with a box or casing, and metallic packing rings located therein, of a rotary adjustable ring for adjusting the packing rings to compensate for wear, substantially as set forth. 12th. Metallic packing rings constructed in sections, and formed with double overlapping joints in their sides and peripheries, substantially as set forth. 13th. The combination, with a stuffing box, of a casing provided with metallic packing and a face plate for retaining the casing between the stuffing box and face plate substantially as set forth. 14th. The combination, with a stuffing box, a box or casing containing adjustable metallic packing rings, of an annular ring bearing seated against the gland of the stuffing-box, of a face plate for retaining the casing in place, substantially as set forth. 15th. The combination, with a stuffing box and a box casing containing adjustable metallic

packing rings, the latter engaging the rod outside of the stuffing-box, of a face plate and a nut for retaining the box or casing in place, substantially as set forth. 16th. The combination, with a stuffing-box and a laterally adjustable casing containing metallic packing rings seated against the end of the gland of the stuffing-box, of a face plate and a nut for retaining the packing rings against displacement, substantially as set forth. 17th. The combination, with a rod, of a detachable casing or box provided with adjustable metallic packing, and means for allowing the packing, a self-lateral adjustment, and for preventing it from moving in the direction of the movement of the rod, substantially as set forth. 18th. The combination, with a box or casing provided with adjustable packing, of a device for automatically compensating for wear of the bearings between the packing and the gland or cylinder, substantially as set forth.

**No. 19,797. Apparatus for Lowering Caskets into Graves.** (*Appareil pour Descendre les Cercueils dans les Fosses.*)

James Burns, Chicago, Ill., U.S., 16th July, 1884; 5 years.

*Claim.*—1st. In the apparatus described for lowering burial caskets into graves, the carriage *c* having the suspending track *E* fixed thereto and supported within the frame *A*, as shown, and arranged to carry the pulley blocks *E*, *E* and *J*, and ropes *F*, *F*, in the manner substantially as and for the purpose hereinbefore set forth. 2nd. In the apparatus described for lowering burial caskets into graves, the winding drum *D* having the crank *O* and ratchet-wheel *R* connected therewith, and supported within the frame *D*, having the spring pawl *P* and lever *P*, and adapted to wind or unwind the ropes *F*, *F* and operate the pulleys *E*, *E* and *J*, to raise or lower a casket by means of the hooks *d*, *d* and straps *S*, *S*, in the manner substantially as and for the purpose hereinbefore set forth. 3rd. In the apparatus described for lowering burial caskets into graves, the winding drums *D* and *D* having the pawl and ratchet mechanism shown, adapted to be rotated to wind or unwind the ropes *F*, *F*, to adjust and hold adjusted the pulley blocks *E*, *E*, in the manner substantially as and for the purpose hereinbefore set forth. 4th. In the apparatus described for lowering burial caskets into graves, the legs *A* adapted to be adjustable as to length, as shown, to hold frame *A* in proper position, by means of the screw-threaded points *H* and thumb-screw *T*, as and for the purpose hereinbefore set forth. 5th. In the apparatus described for lowering burial caskets into graves, the carriage *C* adapted to be moved in either direction on the track *a*, by means of the belts *W*, *W*, roller shafts *B* and *B* and crank *B*, all adapted to operate substantially as and for the purpose hereinbefore set forth. 6th. The combination of the pulley block *J* having the hooks *d* and *d*, slide *S* and springs *S*, adapted to operate substantially as and for the purpose hereinbefore set forth. 7th. In combination with the frame *A* having the carriage *C* and hoisting and adjusting pulleys, ropes and drums, as described, the legs *H* having the joints *H*, *H* and *H*, and thumb-screw *T*, as shown, to operate substantially as and for the purpose hereinbefore set forth. 8th. The combination of the frame *A* and adjustable carriage *c* having the suspending track *E* with the pulleys *E*, *E*, pulleys *J* having the hooks *d*, *d*, hoisting ropes *F*, *F*, adjustment ropes *F* and *F*, pulleys *Z* and *Z*, winding drums *D*, *D* and *D*, and their operating mechanisms, and straps *S*, *S*, to operate substantially as and for the purpose hereinbefore set forth.

**No. 19,798. Portable House.** (*Maison Portative.*)

Otis H. Smith, Cambridge, Mass., U.S., 16th July, 1884; 5 years.

*Claim.*—1st. The end and side sills scarfed or lapped together at their ends, in combination with the posts tenoned into the laps and secured in place by separable connections or hasps, staples and hooks, all being substantially as represented. 2nd. The ridge-piece and each side sill composed of two pieces equal, or about equal in their length, and hinged together, in combination with each wall-plate consisting of three pieces equal, or about equal in their lengths, and connected by hinges. 3rd. The combination of the end and side sills, scarfed or lapped together at their ends, with the posts tenoned into the laps and secured to the side sills by separable connections and with the wall plates, the rafters and the ridge-piece arranged and adapted, and connections, substantially as set forth. 4th. The combination of the eccentric button *K*, with the roof board and the rafter, whereby the joints are made tight, operated substantially as described and for the purpose set forth.

**No. 19,799. Electric Arc Lamp.**

(*Lampe Electrique à Arc.*)

Thomas L. Kay, Hamilton, Ont., 16th July, 1884; 5 years.

*Claim.*—1st. The combination of the lever *B*, sliding clamp *S* and tilting lever *F* operated by the connecting rod *A*, substantially as and for the purposes described. 2nd. The combination of armature *D* with the magnet *Q*, collars *N* and *P*, for the purposes of a shunt, as herein set forth.

**No. 19,800. Artificial Limb.** (*Membre Artificiel.*)

George Beacock and Terence Sparham, Brockville, Ont., 16th July, 1884; 5 years.

*Claim.*—1st. As an improvement in the art of manufacturing artificial limbs, moulding the same of raw hide, as described. 2nd. As a new article of manufacture, an artificial limb of raw hide, moulded damp into form and dried, as shown and described. 3rd. The mode of constructing artificial limbs of raw hide, consisting in moulding the rawhide damp by stretching and sewing it upon the form, and drying it, severing the sewed seams to disengage the form, and then re-sewing the severed seams, as described. 4th. The combination of the hand body *F*, the thumb *A* provided with pivots *a*, *a*, spring *C* and draw-wire *D* to move the thumb, as described.

**No. 19,801. Cylinder for Grain Scourers.**

(*Cylindre pour Nettoyeurs des Grains.*)

John H. Chase, Rochester, N.Y., U.S., 16th July, 1884; 5 years.

*Claim.*—A cylinder for a grain-scouring machine provided, on its inner surface, with the alternately-arranged imperforate round projections *l*, *l* and round depressions *o*, *o*, having perforations *r*, *r*, substantially as and for the purposes set forth.

**No. 19,802. Water and Fire-proof Paint.**

(*Peinture Hydrofuge and Réfractaire.*)

George Learmonth and Cyrus H. McCargar, Fitzroy Harbor, Ont., 16th July, 1884; 5 years.

*Claim.*—A water and fire-proof paint composed of coal-tar, sulphur-whiting and salt, boiled together in the or about the proportions which are specified.

**No. 19,803. Billiard Cushion.** (*Bande de Billiard.*)

Henry Nightingale, Montreal, Que., 16th July, 1884; 5 years.

*Claim.*—A cushion for billiard tables constructed, having its upper surface more or less curved, and its outer surface slanting inwards, and its inner surface being provided with a longitudinal recess, in combination with the cushion bed, substantially in the manner described.

**No. 19,804. Thermometry and Apparatus Therefor.** (*Thermométrie et Appareil pour cet Objet.*)

George T. Beilby, Midcalder, Eng., 16th July, 1884; 5 years.

*Claim.*—1st. The improved system of thermometry, under which temperatures and changes of temperature are indicated, by the measurement at approximately constant temperature and pressure of the volume of gas expelled from a vessel of given capacity, under the influence of the temperature which is to be measured, all substantially as hereinbefore described. 2nd. The apparatus, consisting of expanding vessel, connecting tube and measuring tube, as combined for carrying out this system. 3rd. The jacket of steam or other saturated vapour at approximately constant pressure for maintaining a similarly constant temperature in whatever parts of the apparatus as described is required. 4th. The automatic pressure regulator, as described, with reference to Fig 2 of the accompanying drawings, and as used in the system of thermometry hereinbefore set forth. 5th. The automatic pressure regulator, as described, with reference to Figs. 3 and 4 of the accompanying drawings, and as used in the system of thermometry hereinbefore set forth. 6th. The combined apparatus as illustrated in Fig. 3 of the accompanying drawings, or any mere modification of the same.

**No. 19,805. Window.** (*Fenêtre.*)

William D. Smith, Chester, Pa. U.S., 16th July, 1884; 5 years.

*Claim.*—1st. The window, substantially as described and shown, provided in its lower end with an air inlet, and in its upper end with an air exit or exits, communicating with the flues or chimneys, substantially as and for the purposes set forth. 2nd. The combination, with a box or show window, substantially as herein described, having an air inlet in its lower end, of pipes as *G*, *H*, extended from its upper end and projected into flues or chimneys, substantially as described and for the purposes set forth. 3rd. The improved box or show window, substantially as described and shown, having an opening *B* in its bottom, and provided, in its front side below said bottom, with an opening *D* connected by passage *E* with opening *B*, the hinged opening *A*, the offset *F* at its upper rear side, and pipes *G*, *H*, all arranged and operating substantially as and for the purposes set forth. 4th. The combination, with the window provided with inlet opening *D* in its outer side, below its bottom *B*, and a bottom *B* provided with the gated opening *D*, of the valve *D* supported in suitable guides, close to the under side of opening *B* and adapted to be operated from the inner side of the window, substantially as set forth.

**No. 19,806. Die and Die Block for Forge Hammers.** (*Etampe et Billot d'Etampe pour Marteaux de Forge.*)

James H. Baker, Westville, Ohio, U. S., 16th July, 1884; 5 years.

*Claim.*—1st. The combination of the locking device consisting of the stop-bars *f*, lever *h* and lips *g* with the die *c* having grooves *k* substantially as described. 2nd. The combination of discharger *k* with die *c* having grooves *d*, stop bars *f* and lever *h*, substantially as described. 3rd. The combination of lever *h*, spring catch *i* and spring *l*, with the die *c* having grooves *d*, and stop bars *f*, substantially as described. 4th. The combination, with a die *c* having grooves *d*, of retaining cleats *j* and lips *g*, substantially as described. 5th. The combination, with the die block *c* having the end grooves *d*, *d*, of the dischargers *k*, *k* and the lever *m*, whereby the end of the forged article may be thrown up, as described. 6th. The combination, with the die block *c* having end grooves *d*, *d*, of the stoppers *f* having lip *g*, and the swinging lever *h* provided with a corresponding lip *g*, and the retaining clips *j*, all arranged substantially as shown and described. 7th. The combination, with the lever *h*, of the spring *l* and spring catches *i*, to hold the lever on the article to be forged, as described. 8th. The combination, with the die block *c*, of the block *p* and the shifting lever *q*, as and for the purpose specified. 9th. The combination, with the block *p* having ledges *u*, of the bars *u*, rollers *s* and the notched shifting brackets *v*, as and for the purpose set forth. 10th. The combination of a laterally adjustable die block *p*, projecting supporting bars *u* and friction rollers *s*, substantially as described. 11th. The combination of a laterally shifting die block *p*, projecting supporting bars *u*, friction roller *s* and adjustable bearing brackets for said rollers, substantially as described.

**No. 19,807. Globe Guard for Tubular Lantern.** (*Garde-Verre de Lanterne Tubulaire.*)

John H. Stone, Hamilton, Ont., 16th July, 1884; 5 years.

*Claim.*—1st. In combination with a tubular or globe lantern, of a spring globe guard secured to the globe, perforated disk upon which the globe rests and so constructed as to clasp the globe and be made removable with it, substantially as and for the purpose specified. 2nd. The combination, in a tubular or globe lantern, of the spring globe guards D and perforated disk C, or its equivalent, substantially as and for the purpose specified.

**No. 19,808. Nut Lock.** (*Arrête-Ecrou.*)

Arthur Hébert, Montebello, and Thomas P. Butler, Montreal, Que., 16th July, 1884; 5 years.

*Claim.*—1st. A nut lock perfect in itself, which can be attached to nuts, securing bolts placed in a line parallel to one another, without any other appliances than those it contains in itself, and which does not interfere with any part of the machine or thing to which it is attached, nor require any alteration in the usual construction of any of the parts of such machine or mechanism. 2nd. The combination, in a railway joint or car truck fastening, of the fish plates, bolts, nuts and a flat bar slotted or recessed to fit upon the nuts, and provided with a stud adapted to be wedged between the fish plate at each end and the body against which the fishplate rests, the upright part of which stud passes through the lock plate and is fastened upon the outer side, by a split key or turnbutton, or the lockplate may be fastened at one end by having one end bent in the form of a hook which is placed upon the fishplate, while the other end is fastened by the stud referred to, the whole as substantially described. 3rd. The lock plate B having the openings A, A and slot or recess H, and provided at one end with a hook J, and at the other end with a key hole K (or having a key hole at each end,) or any other suitable means, substantially as set forth. 4th. The combination, with the fishplates and nuts of a railway joint or car truck fastening, of the lock plate B, constructed as described, and the removable key or stud adapted to interlock with the key hole in the lock plate, substantially as set forth. 5th. The key or stud consisting of the wedge M, the upright I, at right angles to the wedge and the turnbutton N or split key O, substantially as described. 6th. The nut lock, shown by the model herewith filed, and the adaptation of the same for other purposes than railway joints, for which this model is specially adapted.

**No. 19,809. Static Compensator for Duplex and Multiplex Telegraphs.** (*Compensateur Statique pour Télégraphes à Double et Multiple Courants.*)

Francois W. Jones, New York, N.Y., U. S., 16th June, 1884; 5 years.

*Claim.*—1st. A static compensator for duplex or multiplex telegraphs consisting of an inductorium, one coil of which is in the circuit with the signalling battery and the line, while the other is in a local circuit, including means for counteracting the disturbing effects of the static charge and discharge current upon the receiver. 2nd. A static compensator for duplex or multiplex telegraphs consisting of an inductorium, one coil of which is connected into the signalling circuit so as to be charged and discharged by the current transmitted to line signalling at every complete movement of the transmitter, while its other coil includes a neutralizing coil applied to the receiver, so as to counteract the effects of the static charge and discharge current flowing in the coils of said receiver. 3rd. The combination, with the receiver in a differential or bridge duplex or multiplex telegraph, of an auxiliary coil adapted to exert upon said receiver an effect counter to that of the static charge or discharge current, and an induction coil whose secondary includes such auxiliary coil while its primary is in the circuit of the signalling battery and line, as and for the purpose described.

**No. 19,810. Bed Spring Connection.**

(*Ligature de Sommier Elastique.*)

Baxter Burnell, Philipsburg, Que., 17th July, 1884; 5 years.

*Claim.*—1st. In a spring bed, the central ring C connected with the spring B by means of the links D, substantially in the manner shown and described and for the purpose herein set forth. 2nd. In a spring bed, the chains E connecting the tops of the springs with the bars upon which the springs stand, substantially as shown and described. 3rd. In a spring bed, the combination of the bars A and springs B, with the ring C, links D and chains E, substantially as shown and for the purpose herein set forth.

**No. 19,811. Device for Holding up an Umbrella to the Seat of a Vehicle.**

(*Appareil pour Assujétir un Parapluie au Siège d'une Voiture.*)

James Castle, Toronto, Ont., 17th July, 1884; 5 years.

*Claim.*—1st. An umbrella holder for attaching to the seat of a buggy or other vehicle composed of the following parts: the clamps A with screw B, or its equivalent, the semi-universal joints C and D and the holder E, so constructed as described and operating as set forth. 2nd. In an umbrella-holder, constructed as described, a semi-universal joint C constructed with three plates  $c_2$ ,  $c_3$ ,  $c_4$ , with a screw  $c_1$  passing through the same, enlarged where the plate  $c_4$  turns upon, and the middle plate formed by the said enlargement screwed tightly up to the shoulder formed by the said enlargement provided with ribs for turning the plate in tightening and loosening the same, the combination of the clamp A with screw B, swivel button  $b_1$  and rubber face  $b_2$ , substantially as shown and described and operating as set forth. 3rd. In an umbrella-holder, constructed as described, the semi-universal joint D, in combination with the holder E, and operating as set forth.

**No. 19,812. Anti-Magnetic Shield for Watches.** (*Enveloppe Anti Magnétique pour Montres.*)

Charles K. Giles, Chicago, Ill., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. A watch movement, in combination with a shield of highly magnetic metal or material, wholly or in part surrounding and inclosing the movement when mounted within the case, substantially as and for the purpose set forth. 2nd. A watch movement, in combination with a box of highly magnetic metal or material, within which the movement is held, and a case center within which the box is mounted and held, whereby the movement is substantially inclosed within an anti-magnetic shield, when set up to complete the watch, substantially as and for the purpose set forth. 3rd. A watch movement, in combination with a box of highly magnetic metal or other material, adapted to receive the movement, and a cover of like material supported from the dial and extending over the plate of the movement, substantially as and for the purpose set forth.

**No. 19,813. Safety Catch for Elevators.**

(*Arrêt de Sûreté pour Monte-charges.*)

Frank A. Weeks, Enniskillen, Ont., 17th July, 1884; 5 years.

*Claim.*—1st. The combination, with an elevator car, of sliding bolts held on the underside of the car, a toggle joint uniting the inner ends of the sliding bolts, a weight suspended from the middle of the toggle joint, locking pins resting on the sliding bolts, and of a rope or chain for raising the weight and middle of the toggle joint to force the sliding bolts outward, substantially as herein shown and described. 2nd. The combination, with an elevator car, of the sliding bolts D, the toggle joint H uniting the inner ends of the same, the casings N, the locking pins M in the same, the weight J suspended from the toggle joint, and the safety rope  $k$ , substantially as herein shown and described. 3rd. The combination, with an elevator provided with openings into which the heads of the automatic locking bolts project, of the pivoted plate O constructed to cover said openings and prevent dirt from entering therein, substantially as set forth.

**No. 19,814. Spoke and Felloe Joint.**

(*Joint de Rais et de Jante.*)

George Minchin, Shakespeare, Ont., 17th July, 1884; 5 years.

*Claim.*—The combination of a spoke A tenoned through the felloe B, of a supporting ferule C encircling the spoke adjacent to the felloe and having flanges or lugs D, D straddling the felloe, and of rivets a, a rivetting those flanges or lugs together upon the interposed felloe and the spoke tenon, as set forth.

**No. 19,815. Salt Feeding Device and Means for Making and Using the Same.**

(*Appareil d'Alimentation du Sel et Moyen pour le Fabriquer et s'en servir.*)

Julus Goldstein, Chicago, Ill., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. A salt feeding device consisting of a solidified salt body adapted to be supported in such manner that it will revolve under the tongue of the animal, substantially as described and for the purpose set forth. 2nd. A salt feeding device consisting of a salt roller, in combination with a supporting bracket or frame, substantially as described. 3rd. In a salt feeding device, a bracket having a sloping top and adapted to receive the salt roller and to protect said roller from waste by animals, and the elements substantially as described and for the purpose set forth.

**No. 19,816. Screen for Picking Potatoes.**

(*Crible pour Trier les Patates.*)

Louis Monette, Montreal, Que., 17th July, 1884; 5 years.

*Réclame.*—1er. Dans une machine à trier les patates, le cadre O et les sas C, D, E, en combinaison avec les lames P, la table R et les guides Ro, Rr, et l'entonnoir B, le tout tel que ci dessus décrit et pour les fins sus-mentionnées. 2o. Dans une machine à les trier les patates, la combinaison du mecanisme H G I K L F avec le cadre O et les sas C, D, E, et le bâti A, tel que ci dessus décrit et pour les fins sus-mentionnées. 3o. Dans une machine à trier les patates, la combinaison du cadre O, des sas C, D, E, avec les réceptacles S, S<sub>1</sub>, T, T<sub>1</sub>, T<sub>2</sub>, la table R R<sub>1</sub> R<sub>2</sub> et le tiroir Q, le tout tel que ci dessus décrit et pour les fins sus-mentionnées.

**No. 19,817. Screen.** (*Ecran.*)

Olin Harley, South Whitley, Ind., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. The combination, in a window screen, of the character described, of the slotted plates L, L on the strip K, the slotted lip J formed on the bracket G<sub>1</sub>, the screw fastening b and the clamping strips J<sub>1</sub> having a notch in its lower end, all constructed and adapted to operate substantially in the manner and for the purposes described. 2nd. The combination, with a window screen roller, of bevelled bar D and its brackets, clamps J<sub>1</sub>, strip K, slotted plates L, L, slotted lips J formed on bracket G<sub>1</sub>, ratchet wheel H and pawl I, all constructed and arranged to operate, substantially as and for the purposes set forth.

**No. 19,818. Fare Box.** (*Tronc de Char.*)

Edward Lusher and Thomas H. Robillard, Montreal, Que., 17th July, 1884; 5 years.

*Claim.*—In a fare box, the combination, with opening through which the coins are introduced, of a double funnel, the exit of the upper funnel being parallel to the opening in the box, and that in the lower at right angles thereto, substantially as and for the purposes set forth.

**No. 19,819. Lamp Chimney Cleaner.***(Nettoyeur de Cheminée de Lampe.)*

William J. Webb, Harbour au Bouche, N. S., 17th July, 1884; 5 years.

*Claim.*—1st. In a lamp chimney cleaner, the rod B fixed to the handle A and having the flanged hubs C and C<sub>1</sub> the former being rigidly fixed to the outer end of the rod B and the latter sliding freely endways on said rod. 2nd. In a lamp chimney cleaner, the handle A provided with a screwed portion, and the finger nut D fitted therein, and arranged to move the flanged hub C<sub>1</sub> endways on the rod B. 3rd. In a lamp chimney cleaner, the elastic ribs E attached to the wire rings  $\delta$ , which are held in annular grooves, formed as shown, in the flanges  $\alpha$  of the flanged hubs C and C<sub>1</sub>. 4th. The combination, in a lamp chimney cleaner, of the handle A, rod B, flanged hubs C and C<sub>1</sub> having the flange  $\alpha$  encircled by the wire rings  $\delta$ , as shown, and the finger nut D with elastic ribs E, as herein described and for the purpose set forth.

**No. 19,820. Heater for Utilizing the Heat of Char Washings in Sugar Refineries.***(Appareil pour utiliser la Chaleur des Eaux de Charbon dans les Raffineries de Sucre.)*

Samuel M. Lillie, Philadelphia, Pa., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. The within described apparatus for utilizing the heat in the char washings of sugar refineries, for heating fresh water, consisting of the chamber A, pyramidal chambers D, D, battery of tubes C extending between the pyramidal chambers and through the chamber A, distributing plates E, E, in the chambers D, D, parietal diaphragms J and vertical gratings or distributing plates K in the chamber A, and ports F, F, to the latter, located above and below the upper and lower diaphragms respectively, substantially as and for the purpose specified. 2nd. In a heater, arranged substantially as described, the combination, with the horizontal diaphragms J, of the gratings or distributing plates K, substantially as and for the purpose specified. 3rd. The combination, with the inductive port of the chamber A, of a grating or distributing plate K supported in the interior chamber in front of the port, the said grating or plate serving to distribute the inflowing waters across the compartment into which the port delivers, substantially as and for the purpose specified. 4th. The combination of the chamber A with the horizontal induction port extending across the same, the horizontal chamber G and the narrow horizontal passage  $f$  between these two, substantially as and for the purpose specified. 5th. The combination of the chamber A and its ports, with the narrow induction passage  $f$  of a valve or gate G, connected with and operated by a float I in the collecting tank H, to open or close the said passage uniformly along its entire length with the rising or falling of the level of the waters in the tank H, substantially as and for the purpose specified. 6th. The combination of chamber A and its tubes, with one or both of the end chambers D, D and perforated distributing plate E, or their equivalent device serving to cause the waters to flow equally through all of the tubes C, substantially as and for the purpose specified. 7th. In a heater constructed substantially as described, the vertical ribs  $\epsilon$  projecting from the inner surface of each side wall of the case, out between the tubes of the adjacent row of tubes, for the purpose of closing or obstructing the channel left between the battery of tubes and the said wall of the case, substantially as and for the purpose specified.

**No. 19,821. Apparatus for Impressing or Marking, and Smoothing Leather.***(Appareil pour Etamper ou Marquer, et Liser les Peaux.)*

Louis Cote, St. Hyacinthe, Que., 17th July, 1884; 5 years.

*Claim.*—1st. The combination of the roller C, constructed as described, with die R, constructed as described, the two arranged in relation with each other, substantially as described. 2nd. The combination of the roller C, die R and set screws S, substantially as described. 3rd. The combination of the roller C, die R and spindles O, constructed and arranged substantially as described. 4th. The combination of the roller C, die R, spindle O and elastic cushions P, the whole constructed, arranged and operating substantially as described. 5th. The combination of the roller C, die R, set screws S, rest E, elastic cushions P, plate H, adjusted as described, and spindles O, the whole substantially as described.

**No. 19,822. Process for Purifying Soda Ash.***(Procédé d'Epuraton de la Soude.)*

Edward H. Russell, Park City, Utah, U. S., 17th July, 1884; 5 years.

*Claim.*—1st. The herein-described process of purifying soda ash, consisting in combining therewith a solution containing sulphate of copper or equivalent soluble compound of copper. 2nd. The process of removing sodium sulphide from sodium carbonate, consisting in dissolving the latter in water containing hyposulphite of soda or potash, and adding sulphate of copper.

**No. 19,823. Dental Plate Mould.***(Moule de Plaque Dentaire.)*

James W. Hayford, George S. Zingling, and Frank E. M. Baldwin, Tiffin, Ohio, U. S., 17th July, 1884; 5 years.

*Claim.*—1st. The combination, with the base plate and frame of the device, of the bottom plate and shell forming the lower section of the mould, the lateral lugs on said bottom plate having slotted guide standards for the sections of the mould and the slotted clamps, whereby the bottom plate is clamped to the base of the mould, substantially as specified. 2nd. In combination with the upper and lower sections of the mould, and the frame and bottom plate guide-standards and pressure screw, the internal rings adapted to fit one within the other

and be embedded in the respective matrices of the mould, one of the rings being slotted at its edges for the initial escape of gas or confined air, substantially as specified. 3rd. The combination, with the frame and its base, of the mould sections, the bottom plate and slotted guide-standards and clamps, and the pressure-screw having a dovetail swivelled plate, and the dovetailed projections on the upper section of the mould with which said plate engages, whereby the upper section may be manipulated accurately with respect to the lower section, substantially as specified.

**No. 19,824. Car-Coupling.***(Accouplage de Chars.)*

Martial Lemieux and Onézime Boisvert, Montreal, Que., 17th July, 1884; 5 years.

*Claim.*—In an automatic car-coupling, the springs B, B, blocks C, C, in combination with coupling-link D d d', coupling pin F, lever G I J, stop K and draw-bars A, A,  $\alpha$ , all as above described and for purposes set forth.

**No. 19,825. Hitching Strap.***(Courroie d'Enrénore.)*

Henry S. Dimock and Joseph A. Stringer, Phelps, N. Y., U. S., 17th July, 1884; 5 years.

*Claim.*—As an improvement in hitching straps, the combination, with a strap having at one end a permanent loop adapted to be passed over the head of the horse, of a small loop or ring sliding upon the said hitching strap and loop, and adapted to engage with one of the bridle-rings, as set forth.

**No. 19,826. Animal Shears.***(Tondeuse.)*

Hiram C. Chiles, Rogers, Ark., U. S., 17th July, 1884; 5 years.

*Claim.*—In a shearing device, the frame A provided with transverse bars A<sub>1</sub> and A<sub>2</sub>, and concave end C having attached thereto a rigid blade, vertical hollow standard or handle B, through which passes the operating shaft, carrying at its lower end a cam  $\alpha$ , connecting link d attached to the end of the operating blade E, and an operating handle attached above the handle B and strap D, for securing the same upon the operator's arm, the parts being organized and combined, substantially as shown and for the purpose set forth.

**No. 19,827. Car-Coupling.***(Accouplage de Chars.)*

François V. Isoire, dit Provencal, St. Frédéric, Que., 17th July, 1884; 5 years.

*Claim.*—The shafts E coupling automatically by means of forked and tongued ends into a line along the whole length of the train, and having cams E set at different angles from each other, said line rotated at will by means of a crank and intermediate of wheels located at any suitable point in the train, and lifting the coupling-pins F, pivoted over the said cams, in combination with the draw-heads G, links D, spring lifts K and adjusting bars L, substantially as described and for the purpose set forth.

**No. 19,828. Electric Arc Lamp.***(Lampe Electrique à Arc.)*

Sidney H. Short, Denver, Col., U. S., 17th July, 1884; 5 years.

*Claim.*—In an arc lamp, a globe or chamber for the arc closed airtight at the bottom and on all sides, a regulator above the globe or chamber, a tight tube forming a passage between the regulator and the globe or chamber, and a carbon-holder extending loosely through the said tube, whereby the gases are retained in the globe, and pressure avoided and free movement of the carbon secured, all substantially as described.

**No. 19,829. Fire-Escape.***(Sauveteur d'Incendie.)*

Ernest Wellings and Francis B. Lockwood, 17th July, 1884; 5 years.

*Claim.*—1st. As an improved fire-escape, a box or case A rigidly fastened to some convenient part of the building, and provided with a lid B powerfully hinged and braced to the said box, in combination with a flexible wire or chain ladder E attached to a bar or spindle F journaled in the box A, the said ladder being arranged to extend over the outer edge of the lid B, substantially as and for the purpose specified. 2nd. The bar or spindle F journaled in the box or case A and braced to support the ladder E, the lid B powerfully hinged and attached to the box A, in combination with the pivoted lever L, the hook G and hasp K and spring H, arranged and operated substantially as and for the purpose specified. 3rd. The bar or spindle F journaled in the box A and arranged to support the ladder E, in combination with the lever I attached to the brake-shoe N and arranged to operate against the pulley M, substantially as and for the purpose specified.

**No. 19,830. Hand Tool for Shoemakers.***(Astic de Cordonnrie.)*

William D. Frank, Elizabethtown, Pa., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. A shoemaker's hand tool consisting of a bed A provided with a shank B for insertion in the handle, having a seat D at one end, with a recess E and threaded hole F at the opposite end, a perforated lug G cast integral with the bed and a set-screw H, in combination with the removably-secured gage K or its equivalent, and lug I, removably-secured plate I with its bead I', oblong slot I<sub>2</sub> and lug I<sub>3</sub>, substantially as and for the purpose specified. 2nd. In combination with a shoemaker's hand-tool, as described, the detachable crescent or bending plate I having lip and bead I' of the usual construction, and provided with an oblong adjusting slot I<sub>2</sub> and a tongue or lug I<sub>3</sub> fitting the recess E of the bed A, and removably secured thereto by the set-screw J, substantially as and for the purpose set forth. 3rd. In a shoemaker's hand tool, as described, and as a shank and burnishing iron, the combination of the bed A, gage M, plate I, divisions P, shank N and screws H and J, as shown and for the purpose set forth.

**No. 19,831. Carding Machine.***(Machine à Carder.)*

Charles E. Whitworth and J. Conrad Gerlach, Boston, Mass., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. In a carding machine, the combination of the roller C, the lever arms *a*, *a'*, the needle-roller D, rod or bar *b* and the rod *c*, substantially as and for the purpose set forth. 2nd. The needle-roller D, constructed as described and shown, in combination with the brush F, smooth roller C and lap-roller A, as specified. 3rd. The combination of the smooth roller C, needle-roller D, brush F and feed rollers G, G, as shown and described. 4th. The concave shield *e* having the knife-edge *f*, in combination with the needle-roller D and feed rolls G, G, as and for the purpose specified. 5th. The combination, with the breaker roll H, of the saw-teeth, bars N arranged above the said breaker roll H, and the receptacles *h*, as and for the purpose described. 6th. The combination of the smooth roller C, needle-roller D, brush F and feed-rollers G, G, with the breaker-roll H, the discharging roller I, the carrier roll J, licker-in K and cylinder R, as shown and described. 7th. The combination of roller C, needle-roller D, brush F, feed-rollers G, G, breaker-roll H, discharging roller I, carrier-roll J, licker-in K, the clearing-bars L and saw-teeth bars N, substantially as described. 8th. The combination of the shaft *a*, the gear-wheels *p* and *c*, chain D and workers P, as and for the purpose set forth.

**No. 19,832. Machine for Seaming or Double Seaming Joints of Sheet Metal Roofing.***(Machine pour faire les Ourlets ou Double-Ourlets des Joints des Toitures en Tôle.)*

Orrin W. Burritt, Needsport, N.Y., U. S., 17th July, 1884; 5 years.

*Claim.*—1st. The combination of bar C, with curved plate O, and anti-friction roller N attached to standard, on lip F hinged to cored bar B, and with bar D and foot-plate E, and means for operating, substantially as and for the purpose set forth. 2nd. The means for adjusting the height of the seamer, consisting of cored bar B with slotted bottom, adjustable gaze L with loops or tongues, and stop-button M attached to cored bar B, and stop-etch on gaze L, the combination arranged to operate substantially as herein shown and described for the purposes set forth.

**No. 19,833. Churn. (Baratte.)**

William H. Stern, Humboldt, Neb., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. A churn, whose body is suspended suitably to swing in a circular horizontal orbit in combination with a counterpoise to the churn body, arranged to swing around the churn-body, substantially as shown and described. 2nd. A churn, constructed with a churn-body, carrying yoke-frame suspended to allow the movement of the churn-body in a horizontal orbit, but secure against bodily axial rotation, and stepped at the bottom and eccentrically in a rotating counterpoise-yoke connected to suitable driving gearing, substantially as shown and described. 3rd. The combination, with the swing-yoke *e* having stud *m*, of the yoke *h* fitted to rotate in axis *f*, *j*, and to which yoke-stud *m* is eccentrically connected, substantially as shown and described. 4th. The combination of swing-yoke *e*, revolving driving counterpoise yoke *h*, and a churn body *d* fitted with vertically ranging cream-breakers *d'*, substantially as shown and described. 5th. The clip or shackle *g* open at *g'* and supported rigidly by a pin fixed to the churn-frame, and having the bearing *g''*, in combination with yoke *e* suspended on bearing *g'*, substantially as shown and described. 6th. The combination, with the swinging yoke-frame *e*, of the churn-body *d* slotted at *o* and fitted with ears or brackets *p*, substantially as shown and described. 7th. The combination, with the swing-yoke *e* and churn-body *d*, of the cover *d'* fitting for secure closure beneath the arch-spring of yoke *e*, substantially as shown and described.

**No. 19,834. Wrench. (Clé à Erou.)**

Barney Ross, Sterling, Ohio., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. A wedge operating in a chamber in the movable jaw of a wrench, and provided with a longitudinal recess and a transverse worm-groove, in combination with a worm adapted to engage the groove and actuate the wedge, and provided with a shank extending through the rear end wall of the movable jaw and a thumb-lever for operating the same, substantially as set forth. 2nd. The combination of the worm G provided with the shank and thumb-lever, as aforesaid, of the jaw B provided with the hole *b* and the accompanying slot, by means of which the parts may be assembled, substantially as set forth. 3rd. The bands *c* and *d*, provided each with bevelled edges, in combination with the rack-piece D provided with ribs or projections, swaged or bent so as to engage the said bevelled edges and hold the parts firmly in position, substantially as set forth.

**No. 19,835. Tally-Board, Block or Register.***(Table de Marque Bloc ou Compteur.)*

William Brown, Worcester, Mass. U. S., 19th July, 1884; 5 years.

*Claim.*—1st. The register-roll or tally-block described, having differently designated sides or surfaces and provided with an aperture for a supporting-wire on which it can be turned without removal, and a suitable frame or means for supporting said wire, substantially as set forth. 2nd. The register or tally-board described consisting of rolls having differently designated sides or surfaces and provided with apertures for the purpose stated, and the supporting frame, all constructed and operated substantially as described. 3rd. The combination, with the rolls A, of the supporting wire B and frame C, substantially as shown and described.

**No. 19,736. Process and Method of Preparing and Preserving Compound for Plum Pudding.***(Procédé et Mode de Préparation et de Conservation d'un Composé à Pouding au Raisin.)*

Henry J. Allen, Denver, Col., U. S., 18th July, 1884; 5 years.

*Claim.*—As an improved article of commerce and manufacture, a dry plum pudding compound, essentially of raw eggs, dried fruit, bread, flour, butter, spices, suet and sugar compounded dry, whereby the eggs are desiccated and preserved without being carbonized, and a dry staple compound formed substantially as here shown and described.

**No. 19,837. Implement for Paring and Coring Fruits and Vegetables.***(Ustensil pour Peler et Vider les Fruits et les Légumes.)*

John W. Fisher, New York, N.Y., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. A combined fruit or vegetable parer and corer consisting of a tube having one end provided with a knife or paring blade, said tube containing a spring ejector for throwing out the core after the implement is withdrawn from the fruit, substantially as described. 2nd. A combined fruit or vegetable parer and corer consisting of the metallic tube A having a scoop end *a* provided with slot *b* and knife B, the spring D enclosed in said tube, and the movable disk E attached to the spring, substantially as described.

**No. 19,838. Automatic Felt Guide for Paper Machines.***(Guide Automatique de Feutre des Machines à Papier.)*

Benjamin A. Schubiger, William Starr, Isaiah Kirk and James E. Starr, Montoursville, Penn., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. The guide-roll *a* and cone-guides *g*, in combination with a paper-machine felt *b*, and mounted on a supporting-bar *d* having center pivot *e*, and carrying-rolls *h* on opposite ends of the bar supporting said end, substantially as described. 2nd. The guide-roll *a* and cone-guide *g* in combination with a paper-machine felt *d* and mounted on a supporting-bar *a* having a central pivot *e*, carrying-rolls *h* on opposite ends of the bar, and stop-chains *j*, whereby the ends of the bar will be supported and the play of the bar limited, substantially as described. 3rd. The combination, with the roll of a paper machine carrying a felt, and said roll being mounted in a swiveled frame, of a rod having screw-threaded ends and mounted in said frame above the said roll, and carrying cones adapted to bear upon the felt passing over the roll and nuts on the rod at each end of the cones, for securing said cones in place, substantially as specified. 4th. The combination of the frame supporting the guide-roll and cone-guides, and having the rollers *h*, *h* on its inner side at each end, and the centrally-perforated flanged plate *o* *l* with the base or frame *p*, *q*, provided with the centrally apertured and flanged plate *n*, *k*, the flanges of the plate *m* fitting within those of the plate *o*, and a connecting-pivot *e*, substantially as set forth.

**No. 19,839. Metallic Packing.***(Garniture Métallique.)*

Thomas Johns, The Dalles, Oregon, U. S., 18th July, 1884; 5 years.

*Claim.* 1st. The combination, with a stuffing-box and a split sleeve fitting within the stuffing box and provided with the combined conical and straight bore, of a split ring having a straight bore of the same size as the straight bore of the sleeve, the lower end of said ring being adapted to fit closely within the stuffing box, while the upper portion thereof is made conical to fit within the conical bore of the sleeve. 2nd. The combination, with a stuffing-box and a split sleeve, closely fitting within the stuffing box and provided with the combined conical and straight bore, of a split ring having a straight bore, the lower end of said ring being adapted to fit closely within the stuffing box, while the upper portion thereof is made conical to fit within the conical bore of the sleeve, and a gland secured to the stuffing box and adapted to bear on the outer end of the sleeve, substantially as set forth. 3rd. The combination, with a stuffing-box and split sleeve composed of two or more sections, closely fitting within the stuffing box, one of said sections being provided throughout a portion of its length with a straight bore, and with a conical bore throughout the remainder of its length, said conical bore registering with the conical bore of the other sections, of split rings having straight bores and situated within the sleeve, and a gland for forcing the sleeve around the rings.

**No. 19,840. Feather Renovator.***(Appareil pour Rafraîchir la Plume.)*

Charles S. Male Jr., Whitby, Ont., 18th July, 1884; 5 years.

*Claim.*—1st. In a feather renovator, in which the beaters are connected to a perforated steam pipe revolving within a suitably-lined box, the combination of the drain-pipes L placed on each side of, and within the said box, substantially as and for the purpose specified. 2nd. In a feather renovator, in which the beaters are connected to a perforated steam pipe revolving within a suitably lined box provided with a ventilating pipe H, in combination with a blow pipe N arranged substantially as and for the purpose specified. 3rd. In a feather renovator, in which the beaters are connected to a perforated steam pipe revolving within a suitably-lined box provided with a ventilating pipe H, in combination with drain-pipe L placed on each side of, and within the said box, and the blow-pipe N inserted into the ventilating pipe H, arranged substantially as and for the purposes specified.

### No. 19,841. Levelling and Plumbing Instrument. (*Niveau Horizontal et Vertical.*)

Oliver H. P. Brown, Clarksville, Ark., U.S., 18th July, 1884; 5 years.

*Claim.*—1st. In a combination plumb and level, the combination of set screw *g* working in threaded plate *h*, secured on the back of cup *b* and bearing in its jewel *j* the lower end of pivot *e*, with set screw *i* working in a female screw in frame *d* and bearing in its jewel *j* the upper end of pivot *e* both adapted to work together, all substantially as shown and for the purposes set forth. 2nd. In a combined plumb and level, the combination of set-screw *g* working in threaded plate *h*, secured on the back of cup *b* and bearing in its upper end the lower end of pivot *e*, with set-screw *i* working in a female screw in frame *d*, and bearing in its lower end the upper end of pivot *e* and face *c* set in the bottom of the cup *b*, weighted plumb *f* and its finger, all substantially as shown and described and for the purposes set forth.

### No. 19,842. Fence. (*Clôture.*)

Alfred Brown, Gananogue, (Assignee of Thomas F. Van Luven, Kings-ton, Ont., 18th July, 1884; 5 years.

*Claim.*—1st. A composite fence having posts C, C', alternately con-joining, as set forth. 2nd The construction of the board rail sections having posts C, C', provided with horizontal saw cuts, and the wire sections having the terminations of the wires provided with perforated metal strips inserted in the saw cuts and held under tension by a key in the perforations binding against the posts C, C', as set forth. 3rd. In combination with pin E having jaws E', the lever F having strap G, as set forth.

### No. 19,843. Churn. (*Baratte.*)

James L. Taylor, Hamilton, and Robert B. Muirhead, Barton, Ont., 18th July, 1884; 5 years.

*Claim.*—1st. In an oscillating churn, the combination of the body A and central creambreaker B forming two equal cream compart-ments, substantially as specified. 2nd. In an oscillating churn, the combination of the trunnion plates G, G, the same constructed with projections *a*, *a*, the cross-bar H and weight I to form a swinging frame, in combination with a stationary frame K K constructed with bearings J, J, substantially as and for the purpose specified. 3rd. In an oscillating churn, the combination of the shaped bearings F, F, body A and trunnion plates G, and bearings J, substantially as and for the purpose specified.

### No. 19,844. Spoke Tenoning and Felloe Boring Machine. (*Machine à faire les Tenons des Raies et percer les Jantes.*)

Henry A. Miller, Arthur R. Coates and Joseph S. Coates, Goshen, N. Y., U.S., 18th July, 1884; 5 years.

*Claim.*—1st. In a felloe boring and spoke tenoning machine, the combination, with the boring spindle, of a feeding lever connected thereto by suitable trunnions, and to a fixed part of the machine by a link, which permits its universal movement in the plane of the spindle, as explained. 2nd. The combination of the boring spindle 5, collar 17 confined thereto, as described, trunnions 18, lever 14 and universal link 15, all connected and arranged to operate substantially in the manner and for the purpose set forth. 3rd. The combination, with the feeding lever 14 connected to the boring spindle, substantially as described, and to the pillar block or other fixed part of the frame by universal link 15, of the dog 25 for engaging therewith for holding it out of engagement, as explained. 4th. In a spoke tenoning machine, the combination, with a suitable clamp for holding the hub of a screw-threaded spindle on which said clamp is mounted, having bearings in the bed of the machine, and means for adjusting said spindle vertically in its bearings, as explained. 5th. In a spoke tenoning machine, the combination, with a hub rest and a screw-threaded spindle for adjusting the same vertically, of a bed block 31 adjustable longitudinally on the bed of the machine, as and for the purpose set forth. 6th. In a spoke tenoning machine, the combination, with a suitable hub rest, of a spoke rest adjustable vertically by means of a sliding wedge, and a clamp consisting of a vertically sliding plunger operated by a lever having universal connections, as and for the purpose set forth. 7th. In a felloe boring machine, the combination, with the boring apparatus, of a rotatable work table, for the purpose set forth. 8th. In a felloe boring machine, the combination, in a felloe clamp, of a longitudinally sliding base with a superposed rotatable work table, having a base pivoted to the sliding base and provided with a clamp bolt for holding it in any position in which it may be set, as set forth.

### No. 19,845. Process for Treating Iron.

(*Procédé de Traitement du Fer.*)

Asahel G. Wedge, (assignee of Brook Woodruff,) Albert Lea, Minn., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. The within described process of treating iron in the course of its manufacture, or when heated for the purpose, by rolling, forcing or pressing into it a preparation or mixture composed of sand, salt and black oxide of manganese, and alternately heating the metal, and repeating said treatment, and afterwards cooling the metal as required for immediate or future use, substantially as specified. 2nd. In the process of treating iron in the course of its manu-facture or while heated to a preparation or mixture of sand, common salt and black oxide of manganese, first, incorporating such mixture with the heated iron, then working or manipulating the iron, afterwards reheating it to a higher temperature, and then again treating it with the mixture, essentially as described. 3rd. The hereinbefore described process of treating iron, which consists in repeated heating at increasing temperatures, alternated with rolling or pressing into it sand, common salt and black oxide of manganese, and, before or after fashioning the metal as required, heating it to about a welding point and hardening or tempering it, substantially as and for the purpose herein set forth.

### No. 19,846. Process for Removing Tannic Acid from Coffee. (*Procédé pour enlever l'Acide Tannique du Café.*)

Charles H. Renner, Syracuse, (assignee of Henry H. Beach, Rome, N. Y., U. S., 18th July, 1884; 15 years.

*Claim.*—The process of treating coffee, for the removal of tannic acid and other deleterious substances therefrom, which consists in heating the green coffee by means of steam to about 212° Fahrenheit for about the time specified, and removing the matter extracted from the berry, substantially as hereinbefore set forth.

### No. 19,847. Endless Belt Conveyor.

(*Appareil d'Embrayage des Courroies sans fin.*)

Edward H. Parker, Eau Claire, Wis., and Clark Robinson, Hornells-ville, N. Y., U.S., 18th July, 1884; 5 years.

*Claim.*—1st. A conveyor consisting of a flexible unbroken web or belt A, provided with side guards made in short overlapping sections, substantially as and for the purpose set forth. 2nd. The herein de-scribed conveyor consisting of an endless web or belt A, and a side-guard B composed of overlapping wings *a*, *b*, substantially as shown and described. 3rd. In a conveyor, substantially such as described and shown, a web or belt provided with a side-guard composed of short overlapping wings alternately provided with a plain and a folded or overturned edge, the plain edge fitting within said folded edge, substantially as and for the purpose set forth. 4th. The herein described side-guard for a belt conveyor consisting of wings *a*, *b*, the wings *a* provided with flanges *e*, and the wings *b* having their edges fitted under said flanges, substantially as shown. 5th. A conveyor belt provided with side-guards composed of short overlapping wings held against lateral separation, substantially in the manner shown and described.

### No. 19,848. Leather Splitting Machine.

(*Machine à refendre les Peaux.*)

George L. Tyler, Lynn, and William M. Currier, Danvers, Mass., U. S., 18th July, 1884; 15 years.

*Claim.*—1st. The trimming knife D, in combination with the feed rolls E, F and guide R, substantially as described. 2nd. The combi-nation of feed rolls E, F, knife D, holder *e* and adjusting bolt *g*, sub-stantially as described. 3rd. The combination of feed rolls E, F, knife D, holder *e* and adjusting bolt *g*, substantially as described. 4th. The combination with the feed rolls E, F, of guide R, knife D, holder *e* and the eccentric adjusting bolts *g*, for the purposes and substan-tially as described. 5th. In a leather splitting machine, the frame K having a pivoted top L in which is journaled the shaft of the feed roll E, the said top L being provided with bolt P surrounded with an elastic cushion or washer by which proper tension of the rolls is obtained, substantially as described. 6th. The trimming mechanism consisting of the rolls E, F and knife D, in combination with guide R and the splitting knife, substantially as described. 7th. The guide R provided, rearwardly of the splitting knife, with a groove adapted to receive the unsplit edge of the piece of leather, in combination with the flaring opener *d* adapted to spread the flaps of the piece, until they are in substantially the same plane, all as set forth and described. 8th. In a leather splitting machine, the piece *d*, shaped as shown, with point adapted to enter the cut in the leather and flaring rearwardly to separate the flaps or halves of the leather and bring them gradu-ally into the same plane, substantially as described. 9th. The combi-nation of the opener *d*, the guide R and the pressing and smoothing rolls *f*, *f*, substantially as described. 10th. The splitting knife W, its feed rolls, in combination with the opener *d*, guide R, feed rolls W, and the pressing rolls *f*, *f*, for the purposes and substantially as described. 11th. A leather splitting machine consisting of a trim-mer knife and its feed rolls and edge guide set rearwardly of, and on a line with the face of the trimming knife, a splitting knife and its feed rolls, the splitting knife being set slightly from the guide so as to have the edge of the piece of leather next the guide unsplit, an opener adapted to separate the flaps of the split leather and the pressing and smoothing rolls, substantially as described. 12th. The method of treating fragments of leather consisting in trimming one side of the piece to a straight edge, splitting the piece except along this straight edge, separating the flaps or halves, and passing them while thus separated, between rollers to press and smooth them into a flat piece having twice the area of the original piece, substantially as de-scribed.

### No. 19,849. Lubricator for Car Axle Journals. (*Boîte à Graisse pour Fusées d'Essieux de Chars.*)

William W. Blackman, (administrator to the estate of Addison Bradford,) Brooklyn, N. Y., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. A lubricator having the base frame adapted to rest on the bottom of the journal box, and having springs secured thereto, which are adapted to sustain a lubricating device, which device is kept in contact by the resiliency of said springs, substantially as described. 2nd. The combination, in a lubricator, of the frame A, the supporting springs and the lubricating rollers, mounted as shown and operating as described. 3rd. The combination, in a lubricator, of the frame, the springs and the cross-head carrying the oil-supply device operating as set forth. 4th. The combination of the wipers, for the supporting springs and oil supplying devices, with the frame carry-ing the rollers, said rollers having eccentrics or cams, or their equiva-lents, for operating oil supply devices, for the purpose set forth. 5th. A lubricator having one or more rollers adapted to be operated by a journal, said roller or rollers being provided with eccentrics cams, or their equivalents, for operating oil devices.

### No. 19,850. Lubricator for Car Axle Journal Bearings. (*Boîte à Graisse pour Coussinets des Fusées d'Essieux des Chars.*)

William W. Blackman, (administrator to the estate of Addison Bradford,) Brooklyn, N. Y., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. The combination, with the axle and axle-box or other journal of the railroad car, of two or more lubricating rollers, arranged to automatically adjust themselves to the varying conditions of the axle, and to the axle-boxes of varying depths, when interposed between the axle and box, substantially as described. 2nd. The combination, with an automatic series of adjusting roller-lubricators, of an axle and axle-box, one or more of said series being in contact with the axle and with a supply roller or rollers, the latter being in a moveable frame resting on the bottom of the axle-box, and the former being superposed thereon and attached by yielding or flexible connections, substantially as described. 3rd. The combination, in a car-axle lubricator, of the frame having fixed supply rollers, one or more distributing rollers flexibly connected to the fixed rollers and frame, being interposed between the axle and box and in contact therewith, and adapted to be adjustable to the varying movements of the axle in either direction, as described. 4th. In a car-axle lubricator, the combination, of axle A, frame E resting on the bottom of said box rollers *a, d* and *f*, flexibly connected and made adjustable with the axle, as described. 5th. The combination, in a car-axle lubricator, of the frame E, rollers *a, b* and *f*, connecting rods *c, d* and spring *e*, as set forth. 6th. The combination, with an automatically adjustable lubricating roller, of the frame E and oil saving device F, the latter being adjustable to the axle and adapted to be carried by the frame longitudinally, as shown and described. 7th. The combination, with an axle lubricator, of the oil saving device consisting of arms B, standards H, springs I, cross-head J and scraper F with the axle, as set forth.

### No. 19,851. Lubricator for Axle Journal Bearings. (*Boîte à Graisse pour Coussinets des Fusées d'Essieux des Chars*)

William W. Blackman, (administrator to the estate of Addison Bradford,) Brooklyn, N. Y., U. S., 18th July, 1884; 5 years.

*Claim.*—1st. The combination, in a lubricator for car boxes consisting of the yielding lubricating rollers, pivoted as described and adapted to be in contact with the journal bearing for the supply of oil, of the vertical spring supports having the rubbers also adapted to be in contact with the journal bearing for preventing the waste of oil, as set forth. 2nd. The lubricator for car axles and the like consisting of the carrying frame D, horizontal frame E, pivoted as set forth, and the spring rubbers, former having lubricating rollers, as set forth. 3rd. The combination, in a lubricator having the upright frame head and the horizontal frame, the former having the elongated slot adapted to receive the horizontal moving bearing of the oilers, of the springs, whereby the oil-rollers may approach to, and recede from each other as shown and described. 4th. A lubricator for railroad car axles consisting of the hinged frames having the oilers and rubbers, in combination with the bail and brace, as described. 5th. A lubricator for car axles having the hollow head forming an oil box, said box being provided with oil inlet aperture for the supply of oil to the rollers, whereby only sufficient lubricant is fed to the axles and with the moveable spring operating journal bearings for said rollers, as described. 6th. The combination, with the journal box, of an oil receptacle therein adapted to have one or more lubricating rollers, said box being provided with controlling oil inlet aperture, for the purpose set forth. 7th. In a lubricator, one or more journal rollers in suitable box or device, to prevent said rollers from running in the oil outside of said box or device, the said box or device being provided with controlling oil inlet or aperture, for the purpose set forth.

### No. 19,852. Wrench. (*Clé à Erou.*)

John Combs and Charles A. Thomas, Rushville, Ohio, U. S., 19th July, 1884; 5 years.

*Claim.*—1st. A ratchet wheel wrench, consisting of a handle having one of its ends cut out half-round, a pawl set in the side of the handle, a circular block flanged and ratcheted upon its periphery and provided with a central opening, and spring band arranged about the circular block and over the pawl and fixed to the handle, substantially as described and for the purpose set forth. 2nd. A ratchet-wheel wrench consisting of a handle having one of its ends cut out half-round, and one of its sides at this end provided with a groove, adapted to receive a pawl and hold it from lengthwise and lateral movement, in combination with a circular block flanged and ratcheted upon its periphery, and provided with a central rectangular partitioned opening having grooves upon its longer faces, a follower adapted to work in said opening and grooves, a screw and screw-threaded sleeve or thumb nut for operating said follower, and a spring band, whereby the circular block handle and pawl are secured and rendered operative, substantially as described.

### No. 19,853. Band Cutter and Feeder.

(*Tranche-Hart et Alimentateur.*)

Frank Hawley, (assignee of Matthew H. Joslyn,) Rochester, N. Y., U. S., 19th July, 1884; 5 years.

*Claim.*—1st. The combination, substantially as set forth, of the cylinder, the grain casting platform hinged at its upper edge and moveable as described, and a suitable grain feeding device arranged in position to deliver grain onto the casting platform, substantially as herein described, for the purposes set forth. 2nd. The combination, substantially as herein described, of a grain feeding mechanism, a thrashing cylinder and a sectional grain casting platform arranged in front of the cylinder, said platform being hinged at its upper and lower sides and moveable at its middle portion, as and for the purpose specified. 3rd. In a thrashing machine, the grain casting platform, substantially as herein described, composed of the section H<sub>1</sub> hinged at its upper end

to the framing rods J, the section H<sub>3</sub> hinged at its lower end, the section H<sub>2</sub> hinged to section H<sub>3</sub>, and sleeves J<sub>1</sub> fitting on rods J, all arranged and adapted to operate, substantially as and for the purpose set forth. 4th. The combination, with the thrashing cylinder, the feed mechanism elevated above the cylinder and having its delivery end arranged in advance thereof, and the returning belt arranged in front of the delivery end of the feed mechanism and approximately vertically over the receiving side of the cylinder, substantially as set forth. 5th. The combination, substantially as set forth, of the cylinder, the feed mechanism, the grain casting platform and the returning belt, all arranged and adapted for use substantially as specified. 6th. The combination, with the cylinder and the grain casting platform, of lower spreader fingers having their points extended in front of the platform between the latter and the cylinder, and means whereby said fingers are operated or oscillated in an approximately horizontal plane, and in a line at right angles to the line of motion of the platform, substantially as set forth. 7th. The combination, with the feed belt, of a series of pivoted spreader-fingers arranged above the delivery end of the feed belt, means whereby these fingers are oscillated in a plane at right angles to that of the feed belt, and means whereby said fingers are adjusted and held at any suitable point to and from the feed belt, substantially as set forth. 8th. The combination, with the bar C pivotally supported at one end, and the finger D pivoted to the opposite end of the bar C, of the segment G secured at one end to the bar C, and lapped at its other end alongside finger D, and means, substantially as described, whereby said finger may be clamped to said segment at any point of adjustment along the same, substantially as set forth. 9th. The combination of the feed belt, the series of upper spreader fingers arranged above the inner end of said belt, the grain casting platform, the pivoted lower spreader-fingers arranged to vibrate in approximately a horizontal plane, the cylinder and the grain returning belt arranged above the cylinder, all substantially as and for the purposes specified.

### No. 19,854. Dredger. (*Dragueur.*)

John A. Ball, Oakland, Cal., U. S., 19th July, 1884; 5 years.

*Claim.*—1st. The hull, its main spud and the rope or cables and anchors, to hold it outside the hull and distant from end of the latter, said cable being connected with the said hull near its other end, combined with a gipsy to act upon the said rope or cable and move the said hull from side to side, substantially as described. 2nd. The hull, its main spud and the rope or cable to hold said hull secured at each side of but distant from the hull, the said cable being made to wind freely with relation to one of the anchors by means of a pulley, as described, combined with a capstan mounted on the hull and adapted to hold taut the working end of said rope or cable, substantially as described. 3rd. The hull, its main spud, the rope or cable H, the anchors H<sub>1</sub>, H<sub>2</sub>, to hold it outside the hull, the pulley connected with the anchor H<sub>2</sub> and the capstan, to receive the unanchored end of the rope or cable, combined with a gipsy to act upon the said rope or cable and swing the hull about the said spud as a center, substantially as described. 4th. The hull and the elevated hopper provided with a discharge outlet, combined with valves or gates at the bottom of the hopper, substantially as described. 5th. The hull and the elevated hopper provided with the discharge outlet, and the valves or gates at the bottom of the hopper, combined with the well into which the material discharged through the said valves or gates drops, substantially as described. 6th. The hull, the elevated hopper provided with the discharge outlet, and the valves or gates at the bottom of the hopper, combined with the roof-shaped cover against which the material dropped through the said valves or gates may strike, substantially as described. 7th. The hull, its main spud, the rope or cable H, the anchors and pulley connected with the anchor H<sub>2</sub>, combined with the pulley H<sub>7</sub> located near the main spud, and with a capstan to receive about it the free end of the said rope or cable, combined with means, substantially as described, to act upon said rope or cable and swing the hull about the said spud, substantially as described. 8th. The hull, its main spud, the rope or cable, the anchor to fix one end of the rope outside of the hull, the anchor provided with a pulley and located at the opposite side of the hull, the capstan to hold the other end of the said rope and a gipsy, and means to move it positively to act upon and swing the said hull about the said spud, combined with a bucket chain and buckets thereon, and with means to operate the said chain and buckets, substantially as and for the purposes set forth. 9th. The hull, the crane and the auxiliary spud, and means to elevate the said spud, combined with means to slide the crane, substantially as described. 10th. The hull, the crane adapted to slide in pivoted guides, and the auxiliary spud, combined with means to slide the said crane and with means to elevate the spud, substantially as described. 11th. The hull and the main spud, combined with a pivoted sliding spud carrying crane, and with means to operate the said crane, substantially as described.

### No. 19,855. Tag-Holder. (*Attache-Etiquette.*)

James Kydd, New York, N. Y., U. S., 19th July, 1884; 5 years.

*Claim.*—1st. The combination, with the hook *a b* having an eye *c* for attaching a tag *d*, of a guard wire *g* arranged to bear sidewise against the side of the hook, to open and close at right angles to the plane of the hook, for connecting and disconnecting the hook with the fabric, substantially as described. 2nd. The combination, with the hook *a b* having an eye *c* for attaching a tag *d*, of a guard wire *g* arranged to bear sidewise against the side of the hook, to open and close at right angles to the plane of the hook, for connecting and disconnecting the hook, and having an extension *h* beyond the back of the point of the hook, for a guide to direct the fabric into the angle between the guard and the point of the hook, substantially as described. 3rd. The combination, with the hook *a b* having an eye *c* for attaching a tag *d*, of a guard wire *g* bearing laterally against the side of the hook and having an extension *h* beyond the back of the hook, and return bend extending to point forward of the point of the hook, and also having a lateral inclination from the plane of parts *b g* in the direction of the point of said hook for overhanging it to protect fabrics from said point, substantially as described. 4th. The improved tag-holder consisting of point *a* formed on wire *b*, tag eye *c*,



also one or more coils *e* of the wire around shank *a*, between eye *c* and the point, and also the guards *g*, *i*, said guard being arranged to bear laterally against the side of the hook, also to extend beyond the back of the hook and to overhang and protect the point of said hook, substantially as described.

### No. 19,856. Medicine Spoon.

(*Cuiller à Médecine.*)

John Moffitt, Chicago, Ill., U. S., 19th July, 1884; 5 years.

*Claim.*—1st. A spoon for administering medicines having a handle provided with a passage *a* leading from the bowl to an outlet *b* at the upper end of the handle, substantially as and for the purpose herein specified. 2nd. A spoon for administering medicines having a handle provided with a passage *a*, leading from the bowl to an outlet, at the upper end thereof, in combination with a funnel cap *C* on the back part of the bowl, substantially as and for the purpose herein specified.

### No. 19,857. Revolving Reel for Exhibiting Goods. (*Montre Tournante.*)

Maxime Bélanger, Ottawa, Ont., 19th July, 1884; 5 years.

*Claim.* 1st. In a horizontal revolving reel, the arms *c* provided with the pins or rods *e*, ribs *g* and the sliding weights *h* having the set screws *k*, substantially as specified. 2nd. A series of shelves or substitutes for the same, suspended by swinging hangers pivoted to the arms of a revolving horizontal reel, substantially as and for the purpose set forth. 3rd. In a horizontal revolving reel having the shelves or racks *C* suspended by the swinging hangers *d*, the arms *c* provided with the ribs *g*, substantially as and for the purpose specified. 4th. In a horizontal revolving reel having the suspended swinging shelves or racks of bars *C*, and the arms *c* having the ribs *g*, the sliding weights *h* provided with recesses to take over the ribs *g*, and the set screws *k* for holding the same, substantially as described.

### No. 19,858. Cloth Pressing Machine.

(*Machine à Presser les Draps.*)

John Shearer, Preston, Ont., 25th July, 1884; 5 years.

*Claim.*—1st. The hollow plates A, B, C and D carried on the columns E, the springs F, arranged as specified, in combination with the arms I having pivoted, as shown, on the bottom plate D, a knife joint, as specified, in combination with the cams J arranged to operate the toggle jointed arms I, substantially as and for the purpose specified. 2nd. The driving shaft N having fastened on it a worm pinion Q, to mesh with the spur wheel R on the shaft S, which shaft S is connected by the spur wheels T and U to the shaft V, in combination with the cams J arranged to straighten the toggle jointed arms I, and the wipers M arranged to come in contact with the bars K, connected to the pivots of the toggle joints by the chain L, for the purpose of breaking the said toggle joint, substantially as and for the purpose specified. 3rd. In a cloth pressing machine, in which the pressing plates are operated by the toggle jointed arms I actuated by cams J, the combination of mechanism arranged to break the toggle joints, substantially as and for the purpose specified. 4th. In a cloth pressing machine, the top plate A supported on shoulders formed on the columns E, in combination with the spindle H passing through holes made in studs G attached to the plates B and C, and the nuts *b* and *e* arranged to connect the said spindles to the plates A, B and C, substantially as and for the purpose specified. 5th. In a cloth pressing machine, the damping roller X deriving motion from the shaft V, for the purpose of feeding and continuously damping the cloth, before it is carried between the plates to be pressed, in combination with the take-up roller *h* arranged to draw the cloth from the damping roller, substantially as and for the purpose specified. 6th. In a cloth pressing machine, a winding roller *m* deriving a rotary motion from suitable gearing *n*, in combination with the cloth roller *o* arranged to roll the cloth, substantially as and for the purpose specified.

### No. 19,859. Oil Stove. (*Poêle à Huile.*)

John Milne, Hamilton, Ont., 25th July, 1884; 5 years.

*Claim.*—In an oil stove, the top A in which the oven boiler and pots are set, being constructed and arranged to slide backward or forward on the top of the stove B, so that the fire can be brought either under the oven C on the back of stove, or under the pot holes F in front, as required.

### No. 19,860. Force Pump. (*Pompe Foulante.*)

Milo L. G. Wheeler, Oregon, Oregon, U. S., 25th July, 1884; 5 years

*Claim.*—1st. In a pump, the block A having suction-cylinder C bored entirely through the block, pressure-cylinder B bored parallel with, and but half the length of cylinder C, and port D bored from the bottom of cylinder B into cylinder C, substantially as and for the purpose hereinbefore set forth. 2nd. In combination with the suction cylinders C, the double piston J consisting of the neck and two sections formed in one piece, the said piston sections fitting the bore of the suction cylinder, the construction being such that there is an annular space formed by the sides of cylinder C and said piston, substantially as shown. 3rd. In combination with the suction cylinder C, the double piston J consisting of the neck and two sections formed in one piece, the said piston sections fitting the bore of the suction cylinder, the construction being such that there is an annular space formed by the sides of said space and extending flush with the surface of the piston, thereby forming a space for a water packing, substantially as shown and for the purpose set forth.

### No. 19,861. Device for Arranging Nails in Serial Order. (*Appareil pour Disposer les Clous par Séries.*)

Stewart Perry, Newport, N. Y., U. S., 25th July, 1884; 5 years.

*Claim.*—1st. A tray, hopper or receptacle adapted to hold nails in bulk, and constructed to receive support within its lower portion, a series of independent and portable magazines, in combination with said magazines, the arrangement being such that, by actuating the nails in the tray, hopper or receptacle, they will gravitate into, and be arranged in serial order in the magazines, substantially as set forth. 2nd. The combination, with magazines adapted to receive nails arranged in serial order, of the case to support said magazines in position to be charged, and a series of bevelled bars to deflect nails into the magazine, substantially as set forth. 3rd. The combination, with magazines adapted to receive nails arranged in serial order, of the case for supporting said magazines in position to be charged, and the deflectors adapted to rest upon the case in which the magazines are supported, said reflectors being provided with a bottom formed of a series of parallel bevelled bars, substantially as set forth.

### No. 19,862. Combined Saw Jointer and Gage. (*Machine à Egaliser les Dents des Scies.*)

Henry Flater, Findlay, Ohio, U. S., 25th July, 1884; 5 years.

*Claim.*—1st. The combination, with the jointer-head having the slotted portion and the depending end flanges or lugs, of the pivoted base and the clamping bolt, as set forth. 2nd. The combination, with the jointer-head having the slotted central depressed portion, and the depending end flanges or lugs, of the standard formed with a suitable base and pivoted to the jointer-head, and the clamping bolt working through the base, as set forth. 3rd. The combination, with the jointer-head having the slotted central depression and the depending end flanges or lugs of the base portion pivoted to the head and formed with a locking arm, and the swivel-headed clamping bolt, as and for the purpose set forth. 4th. The combination, with the jointer-head having the slotted central depression *b* and the depending end flanges or lugs *e*, and the arm *f* of the standard *h* pivoted to the arm and formed with a base portion *i*, the latter comprising arms *p*, *k*, and the swivel-headed clamping bolt *m* working through the arm *k*, as and for the purpose set forth.

### No. 19,863. Smoke Consuming Furnace.

(*Fourneau-Fumivore.*)

Alexander Crawford, Duluth, Minn., U. S., 25th July, 1884; 5 years.

*Claim.*—A hollow tapering bridge wall E open at its upper and lower ends, said bridge wall being hollowed out cut away to form a concave upper end, in order that all parts shall be equi distant from the boiler, and provided at its lower end with a ledge to support one end of the grate, in combination with pipes G<sub>1</sub>, G<sub>2</sub>, communicating with said bridge wall, near its lower end, resting on the grate and extending the entire length of the same, substantially as set forth.

### No. 19,864. Smoothing Iron. (*Fer à Repasser.*)

Alphonse T. A. Chagnon, Montreal, Que., 30th July 1884; 5 years.

*Réclame.*—1o. Dans un fer à repasser chauffant sur une lampe, D, les ouvertures B en combinaison avec le tube A A<sub>1</sub> A<sub>2</sub> C et la poignée D, tel que ci-dessus décrit et pour les fins sus-mentionnées. 2o. Dans un fer à repasser chauffant sur une lampe, les baguettes E en combinaison avec le tube A A<sub>1</sub> A<sub>2</sub> C, tel que ci-dessus décrit et pour les fins sus-mentionnées. 3o. Dans un fer à repasser chauffant sur une lampe, la combinaison des disques ou opercules F, F<sub>1</sub>, F<sub>2</sub>, G<sub>1</sub>, G<sub>2</sub>, avec le tube A A<sub>1</sub> A<sub>2</sub> C, la poignée D et les baguettes E, le tout tel que ci-dessus décrit et pour les fins sus-mentionnées.

### No. 19,865. Gang Plough.

(*Charrue à Plusieurs Soes.*)

William Kimmel, Milton, Ind., 30th July, 1884; 5 years.

*Claim.*—1st. An intermediate frame consisting of the longitudinal beams A, provided with eyes *a* adapted to attach the same to a travelling mechanical motor, and the beam B secured diagonally upon beams A, and provided at each end with vertically adjustable casters *b* and with means, substantially as specified, for independently attaching each one of a gang of plows to said diagonal beam, as and for the purpose specified, whereby the diagonal plow attaching beam is independently mounted to run upon its own wheels, and is provided with flexible connections to attach it to a travelling mechanical motor, substantially as specified. 2nd. The combination, with the intermediate frame described, and the brace beams D thereon, of the terminal pulleys D<sub>1</sub>, the chains J thereon, the cross-bar E and ropes *e* connecting said chain with the plows, the roller N on the engine, and means, substantially as described, for revolving and holding the same. 3rd. The caster posts F, each slotted to receive the clevis of a plow and provided with two or more cross-pin holes, and a pin for holding said clevis loosely, and the bail connections *d*, substantially as and for the purpose specified. 4th. The caster-posts F provided with vertical slots and cross-pin holes, for receiving the plow beams and hauling pins, in combination with the two bail hitches *d* secured to each post, as shown and described. 5th. The diagonal beam B and means for securing the same to a motor, in combination with the caster-posts F, bails *d* and links G, as shown and described. 6th. The supporting arms H and adjusting screws *h*, in combination with the motor, each provided with two horizontal connections with the motor, whereby one of said connections may be raised or lowered to cant the plow, as described. 7th. The combination, with truck mounted wheels, of one or more plows, each having two independent hitching rods to connect it with said truck, a lever pivoted to said truck above one of said rods and connected therewith by a link, a toothed segment fixed concentric with said pivot, and a latch upon said lever, whereby said rod may be quickly raised or lowered and then held to cant the plow, substantially as described.

### No. 19,866. Creamer. (*Boîte à Lait.*)

James Matthews, Warton, Ont., 30th July, 1884; 5 years.

*Claim.*—In combination with the cream can A having a dished

bottom provided with a central discharge outlet, the cone H inserted within the can, substantially as and for the purpose set forth.

**No. 19,867. Liniment for Fistules, Ulcers, Cuts, Bruises, &c., upon Horses and Cattle.** (*Onguent pour Fistules, Ulcères, Coupures, Ecrasures, &c., aux Chevaux et Bestiaux.*)

Joseph A. Wilcox, Guelph, Ont., 30th July, 1884; 5 years.

*Claim.*—The compound composed of the said articles to be used as such liniment, substantially in the proportions and manner and for the purposes set forth.

**No. 19,868. Composition of Matter for Roofs.** (*Composition de Matières pour Toitures.*)

Thomas Head, Copetown, Ont., 30th July, 1884; 5 years.

*Claim.*—A compound composed of the hydraulic cement, carbonate of iron, mica, kerosene oil and coal tar, in the proportion and for the purpose specified.

**No. 19,869. Furnace for Distilling and Carbonizing Wood.** (*Fourneau de Distillation et de Carbonisation du Bois.*)

Jean A. Mathieu, Detroit, Mich., U.S., 30th July, 1884; 5 years.

*Claim.*—1st. The combination of the charcoal reservoir with the exit pipe of the condenser, whereby the non-condensed or uncondensable gases are passed through the hot charcoal, substantially as described. 2nd. The combination of the charcoal reservoir, exit pipe of the condenser and pipe D leading to the main retort, whereby the gases, after passing through the hot charcoal, are driven into the retort, substantially as described. 3rd. The retort M having lateral openings J near its top, and vertically-sliding doors E, substantially as described. 4th. The combination of the neck N and tank Q with the car and its elevators, substantially as described. 5th. The combination of the car I having slots k, with the neck S and bars b, substantially as described. 6th. The combination of the elevator B and car I having upper guide-wheels, with the neck S and guides a, substantially as described. 7th. A closed retort for carbonization of wood, having a pipe adapted to lead off from said retort the gaseous products of distillation, connected with said retort, at or near the lower end thereof.

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

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| <p>241. J. F. BENNETT, 2nd 5 years of No. 10,202, from the 9<sup>th</sup> day of July, 1884. Improvements in blast furnaces, 2nd July, 1884.</p> <p>242. THE SMITH MANUFACTURING CO. (assignee), 2nd 5 years of No. 10,188, from the 3rd day of July, 1884. Improvements in machinery for sewing together sheets of paper or other material into books or pamphlets, 2nd July, 1882.</p> <p>243. R. I. CREELMAN &amp; A. KAY, 2nd 5 years of No. 19,496, from the 3rd day of July, 1884. Improvements in knitting machines, 2nd July, 1884.</p> <p>244. J. W. HOLMES, 2nd 5 years of No. 10,210, from the 9th day of July, 1884. Improvements on sun dials or solar chronometers, 3rd July, 1884.</p> <p>245. P. CRAFORD, 2nd 5 years of No. 10,191, from the 3rd day of July, 1884. Improvements on bee hives, 3rd July, 1884.</p> <p>246. J. HENSHAW, 2nd 5 years of No. 10,318, from the 1st day of August, 1884. Improvements in stump and stone extractors, 7th July, 1884.</p> <p>247. E. WISEMAN, 2nd and 3rd 5 years of No. 10,218, from the 10th day of July, 1884. Improvements in the mode of and apparatus to be used in sewing by machinery, 8th July, 1884.</p> <p>248. J. W. G. WHITNEY (assignee), 3rd 5 years of No. 3,634, from 16th day of July, 1884. Improvements in car-couplers, 9th July, 1884.</p> | <p>249. G. WILKINS and J. M. SMITH (executors), 3rd 5 years of No. 3,666, from the 20<sup>th</sup> day of July, 1884. Improvements on chisel-pointed cut nails, and machine for making same, 10th July, 1884.</p> <p>250. A. BARTHOLOMEW, 2nd 5 years of No. 10,219, from the 10th day of July, 1884. Improvements in seed sowers, 10th July, 1884.</p> <p>251. W. MORRISON, 2nd 5 years of No. 10,221, from the 10th day of July, 1884. Improvements on chemical fire engines, 10th July, 1884.</p> <p>252. J. B. HARRIS (assignee), 2nd 5 years of No. 10,264, from the 21st day of July, 1884. Improvements on curd cutters, 14th July, 1884.</p> <p>253. D. ACKLAND, 2nd 5 years of No. 10,308, from the 20th day of July, 1884. Improvements on the Dexter spring, 14th July, 1884.</p> <p>254. W. E. RENDLE, 2nd and 3rd 5 years of No. 10,333, from the 26th day of July, 1884. Improvements on glazed structures for horticultural and other purposes, 15th July, 1884.</p> <p>255. F. ROURK, 2nd 5 years of No. 10,264, from the 26th day of July, 1884. Improvements in the process and apparatus for evaporating liquids, 18th July, 1884.</p> <p>256. G. S. BRUSH (assignee) 2nd 5 years of No. 10,328, from the 7th August, 1884. Improvements on stone crushers, 28th July, 1884.</p> |
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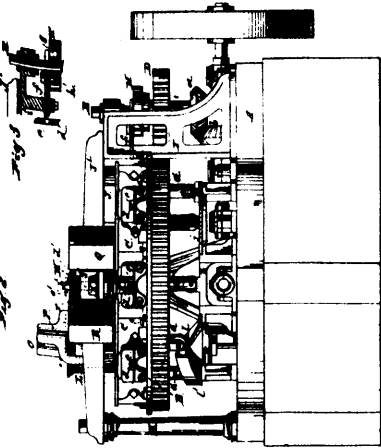
# THE CANADIAN PATENT OFFICE RECORD.

## ILLUSTRATIONS.

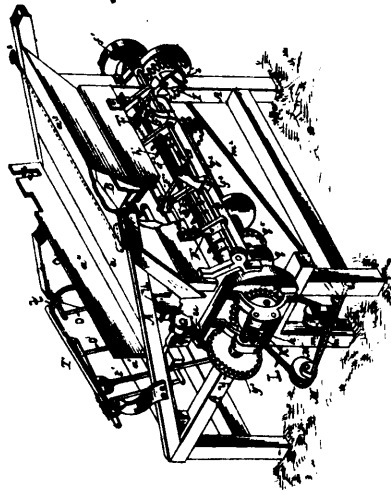
Vol. XII.

AUGUST, 1884.

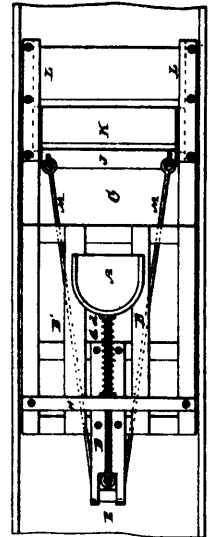
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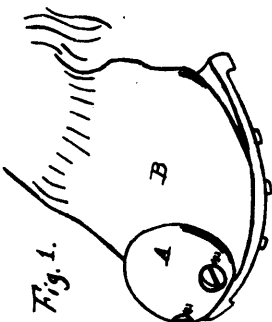
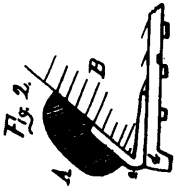
18718 Gregg's Machine for Making Bricks.



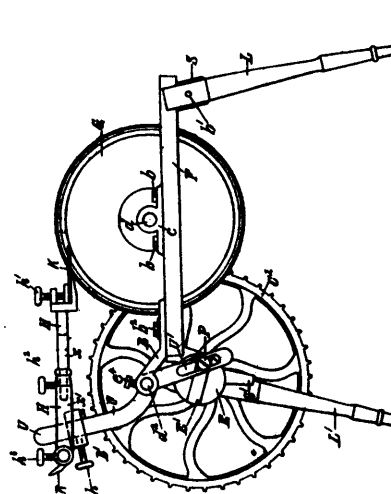
18719 Tuttle's Straw Band Grain Binders.



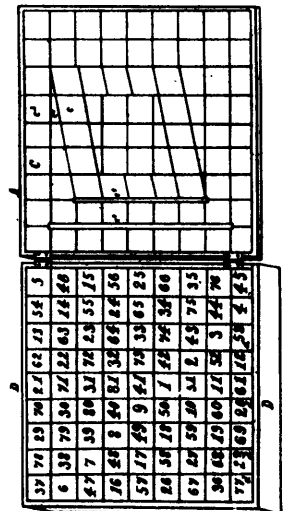
18720 Turpel's Foot Board.



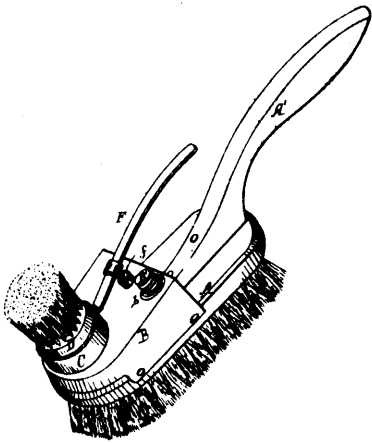
18721 Miles' Toe Weight for Horses.



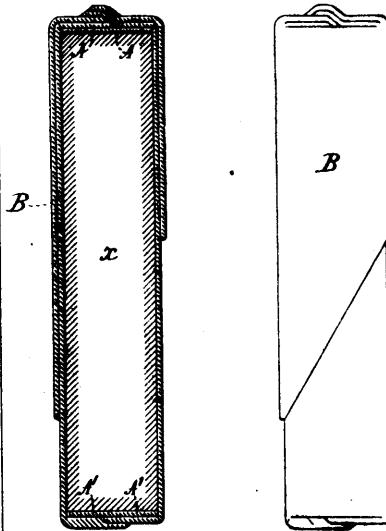
18722 Williams' Reaper and Mower Knife Section Sharpener.



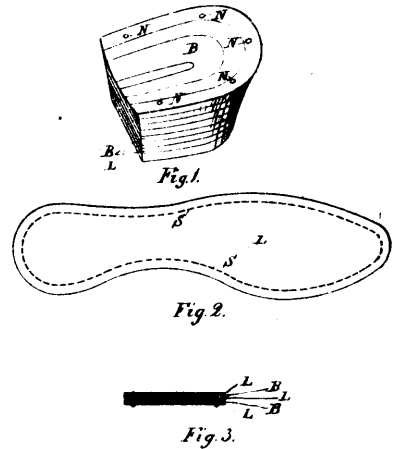
18723 Van Bibber's Device for Instruction and Amusement.



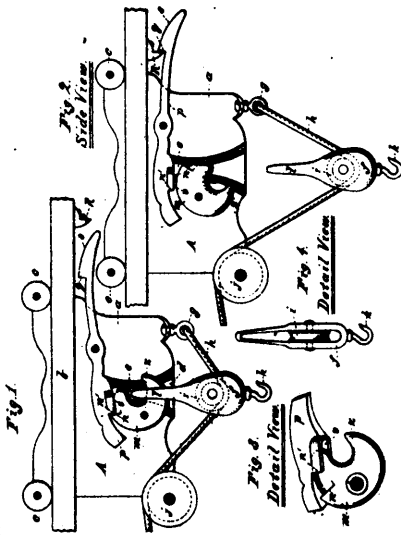
19724 Cote's Shoe Brush.



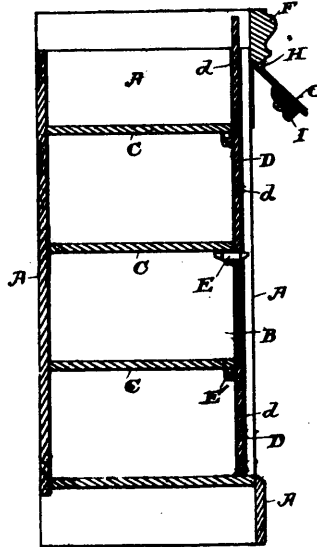
19725 Barbe's Cartridge.



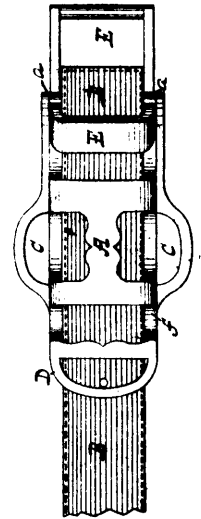
19727 Guay's Utilization of Birch Bark.



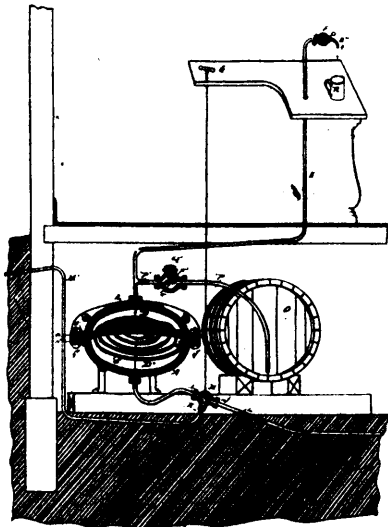
19728 Jordan's Hay Carrier.



19729 Pursell's Pigeon Hole.



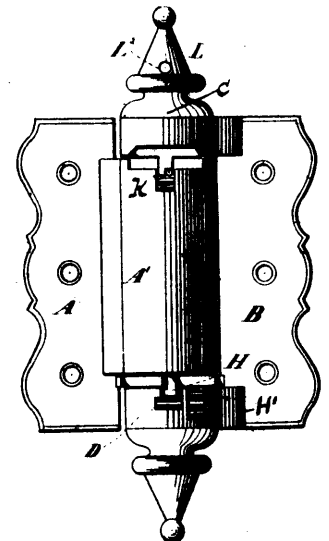
19730 Gavitt's Harness Buckle.



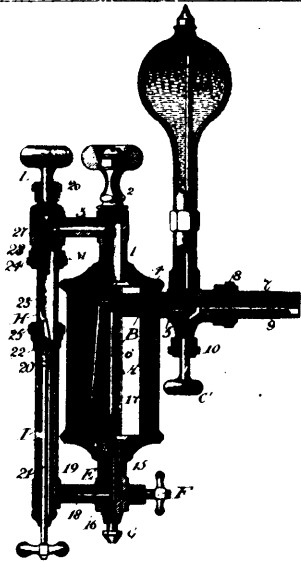
19731 Beauchemin's Pump.



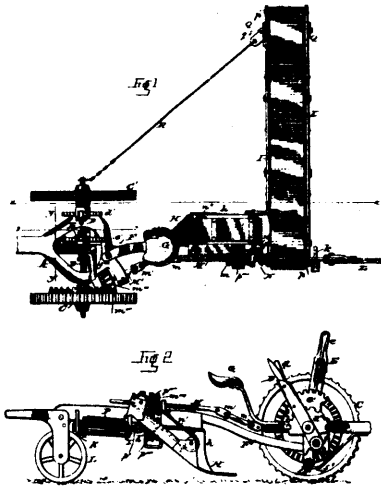
19732 Shortridge's Grain Drill.



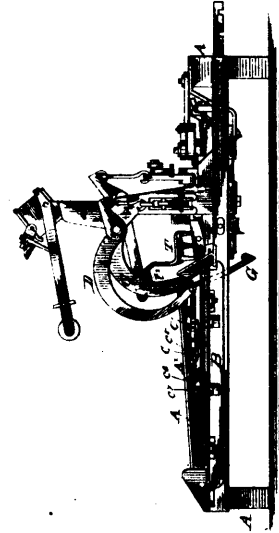
19733 Lane's Spring Hinge.



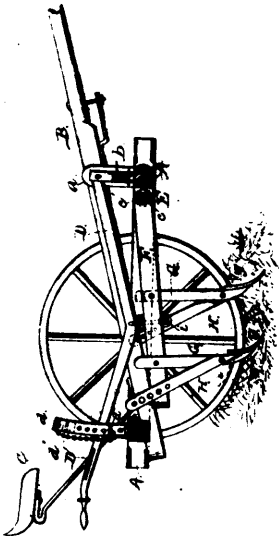
19734 Rekl's Lubricator.



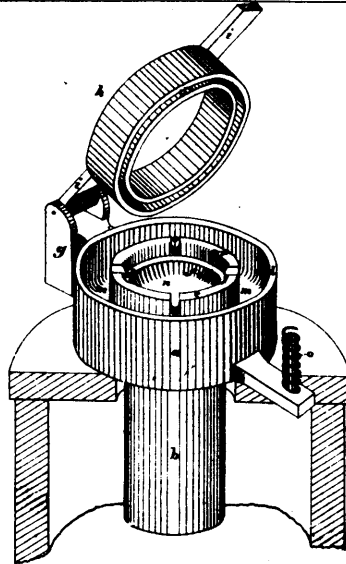
19735 Ver Genius' Ditching Machine.



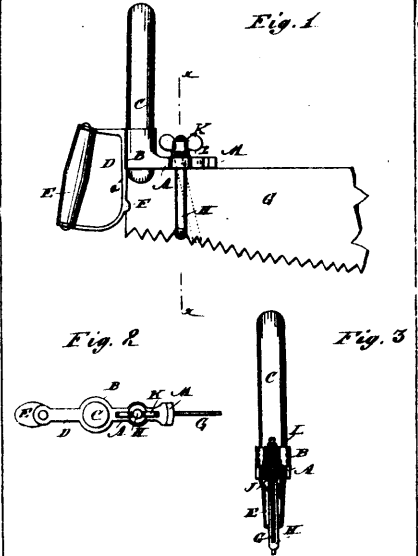
19736 Lidren's Harvester Rake.



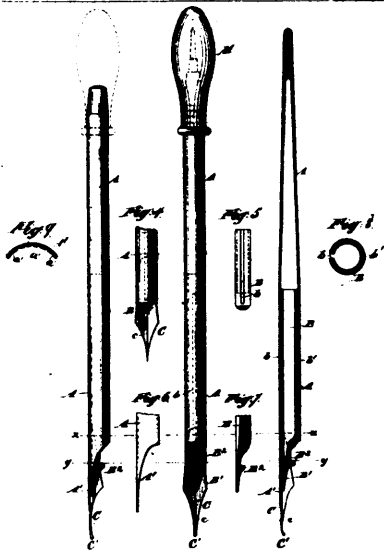
19737 Trump's Cultivators.



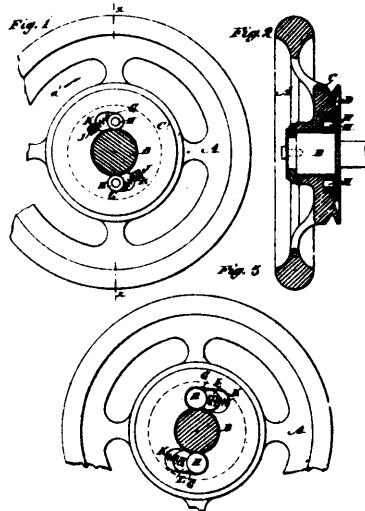
19738 Marsh's Machine for Soldering Cans.



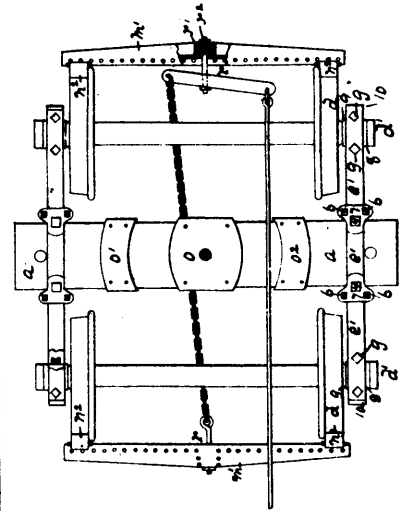
19739 Uren's Handle for Cross Cut Saws.



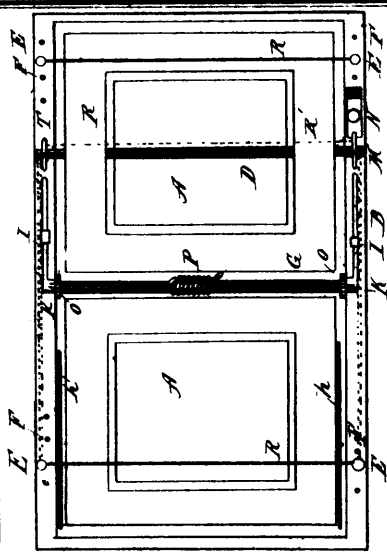
19740 Hoyt's Fountain Pen.



19741 Bascoe's Friction Clutch.



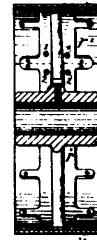
19742 Jewett's Car Truck.



18743 Onslow's Music Leaf Turner.



Fig. 1.



18744

Olsen's Pulley.

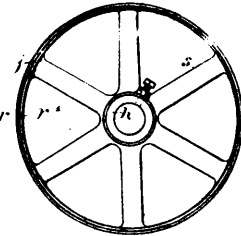


Fig. 2.

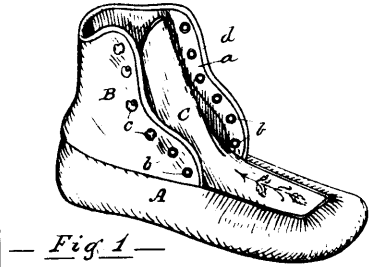
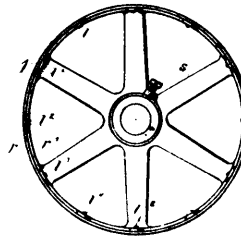


Fig. 1

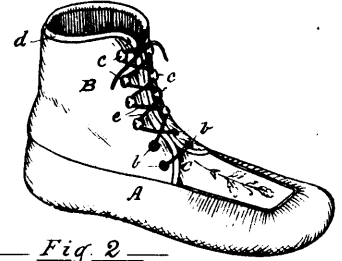
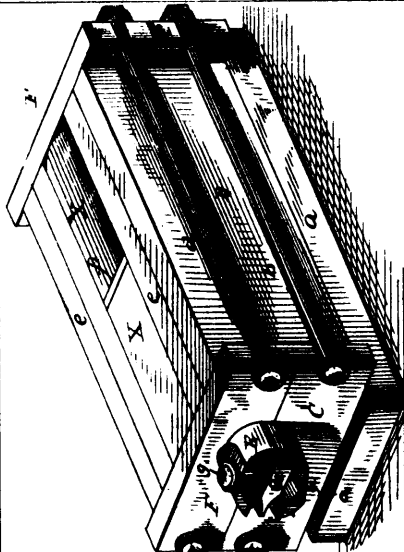


Fig. 2

18745

Durand's Mocassins.



18746 Grant's Tile Mould.

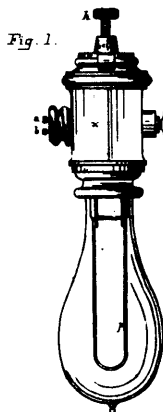


Fig. 1.

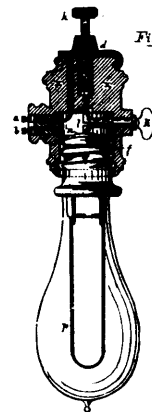


Fig. 2.

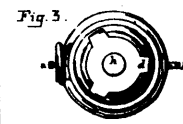


Fig. 3.

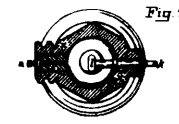
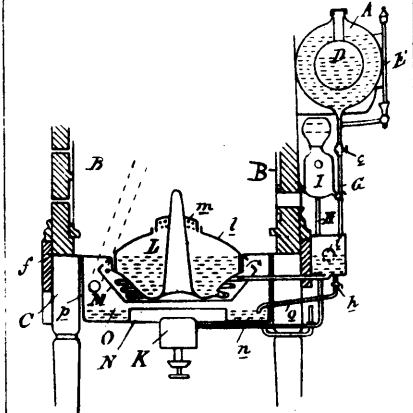


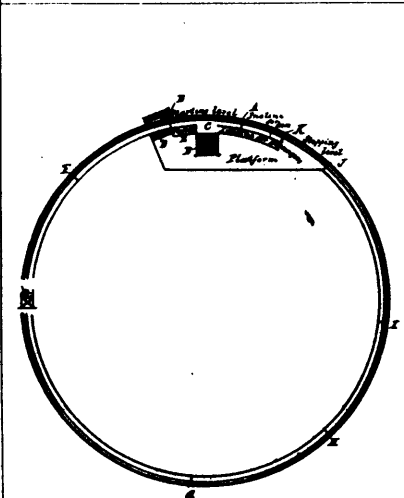
Fig. 4.

18747

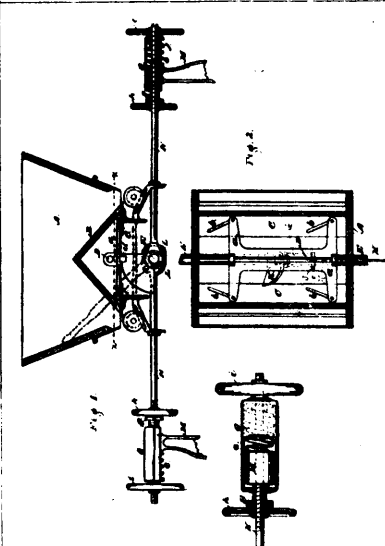
Boussey's Electric Lamp.



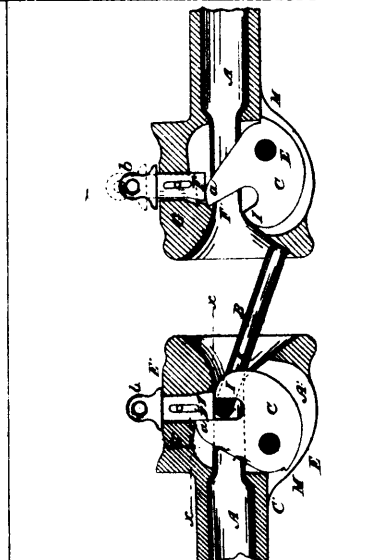
18748 Martin's Device for Re-Sweating Tobacco.



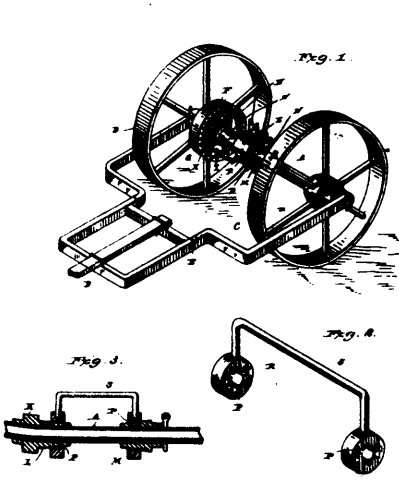
18749 Wood's Circular Gravity Railway.



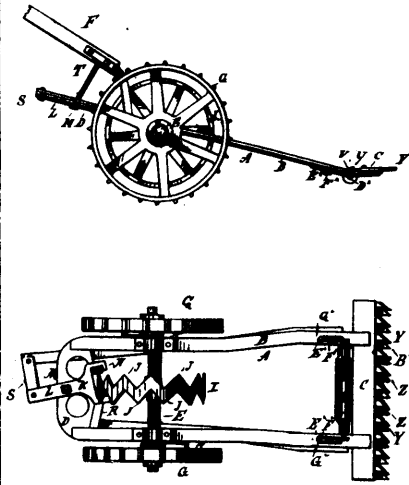
18750 Livingston's Roller Mill.



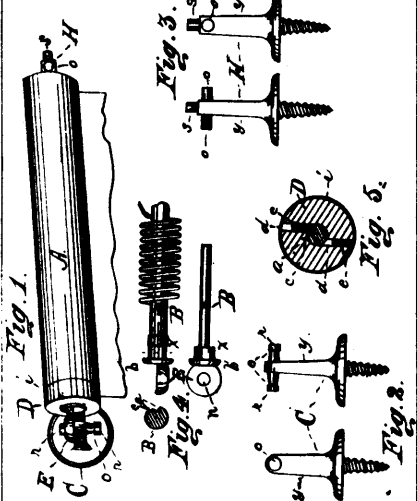
18751 Fraser & Rice's Car-Coupling.



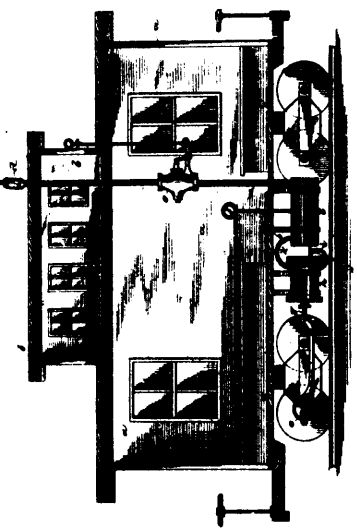
18752 Johnson's Wire Reel.



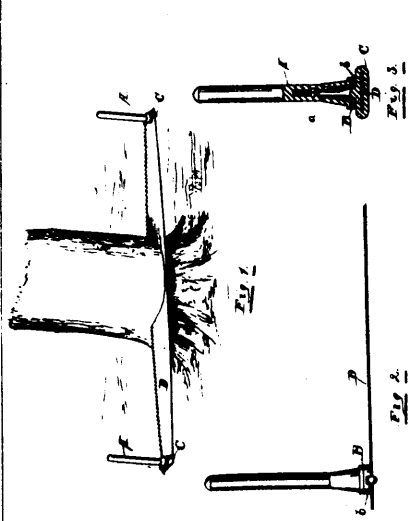
18753 Cheney's Lawn Mower.



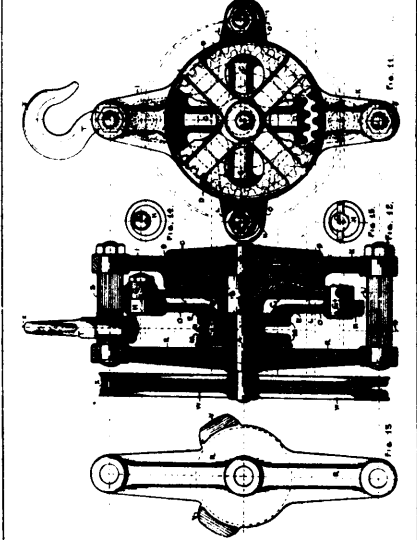
18754 Sweetland's Curtain Fixtures.



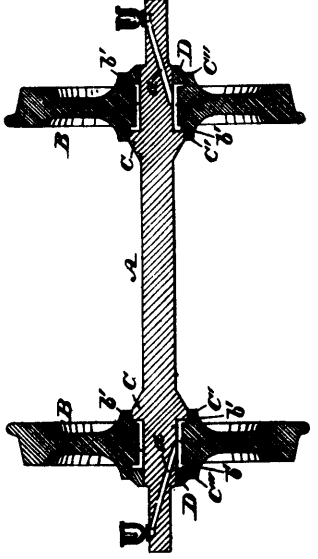
18755 Huber's Railroad Signal.



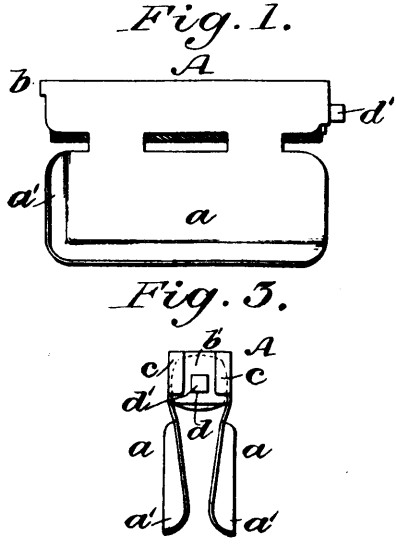
18756 Frazier's Haw Handle.



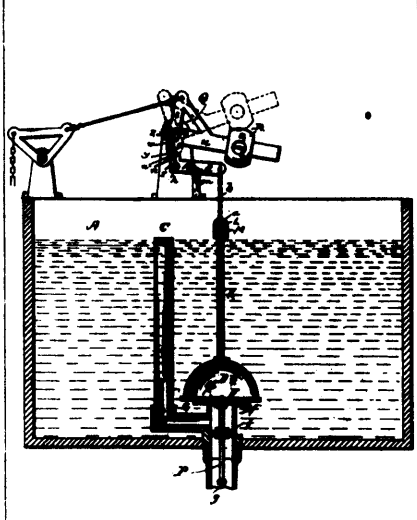
18757 Clemons' Apparatus for Transmitting Differential Rotary Motion.



18758 Stevenson's Car Wheel and Axle.

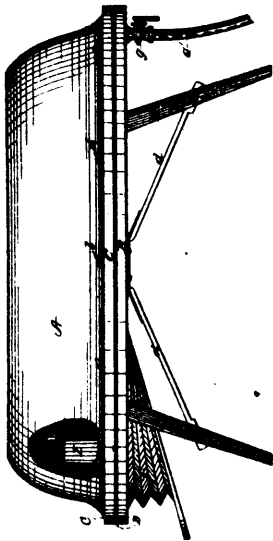


18759 St. Pierre's Skate Sharpener.

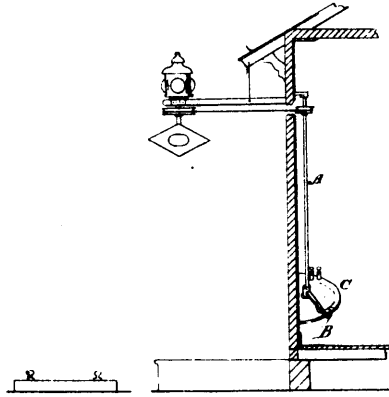


18760 Scott's Valve for Water Closets.

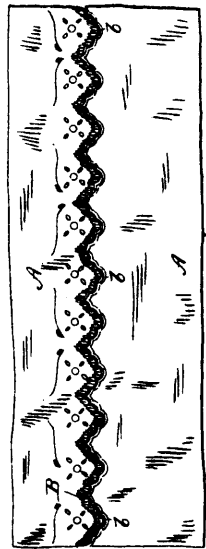




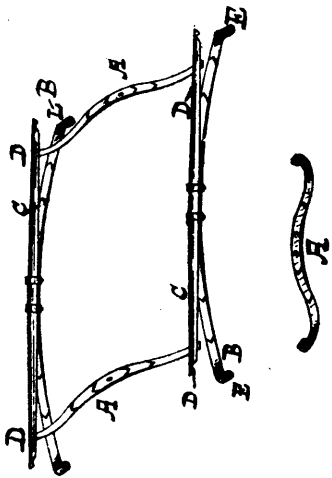
19761 Lovett's Case for Embalming Dead Bodies.



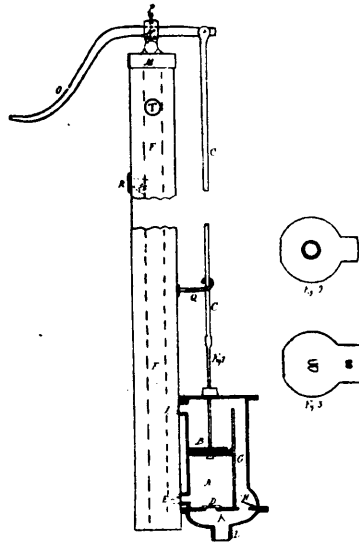
19762 Buy's Railway Signal.



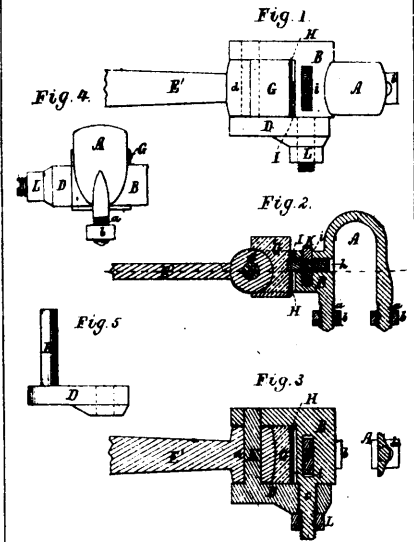
19763 Pulaaski's Textile Fabric.



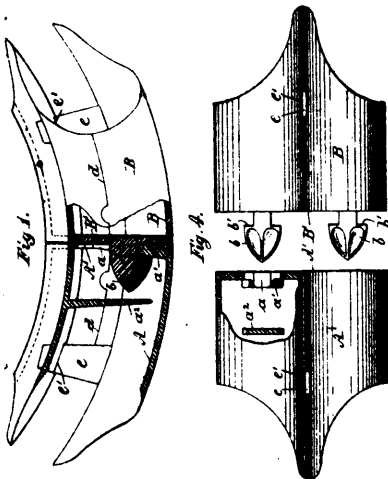
19764 Hamelle's Carriage Spring.



19765 Butler's Pump.



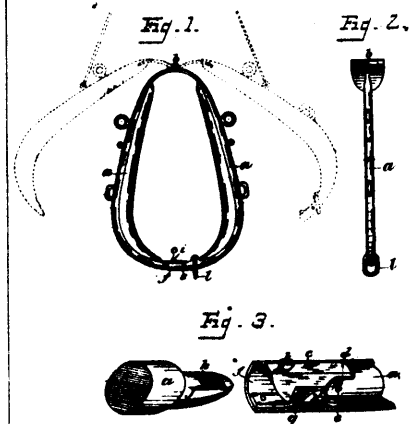
19766 Primus' Carriage Thill Coupling.



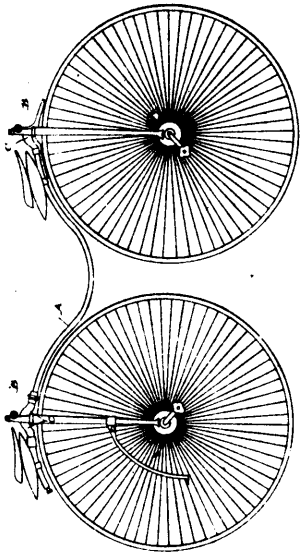
19767 Platt's Horse Collar Fastener.



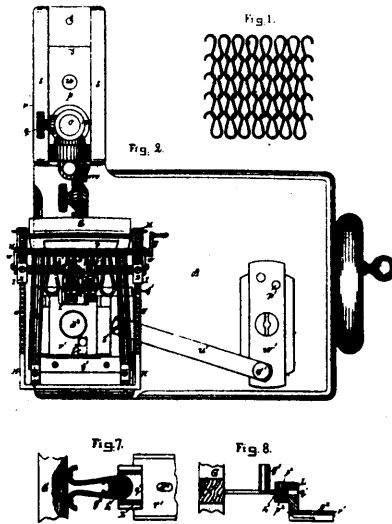
19768 Fraser's Spring Bed.



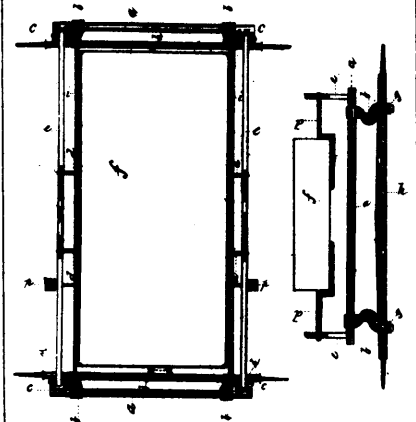
19769 McCurdy's Name.



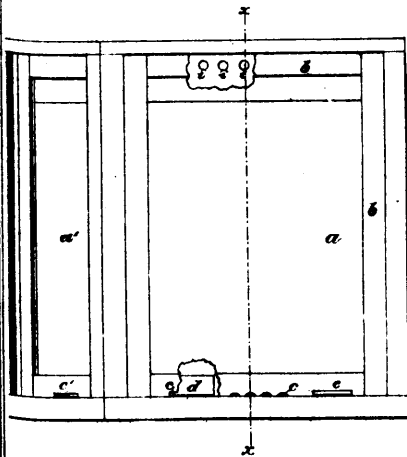
18771 Robinson's Bicycle.



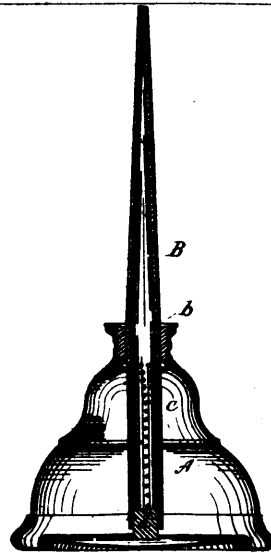
18772 Taft & Rice's Machine for Knitting Rattan.



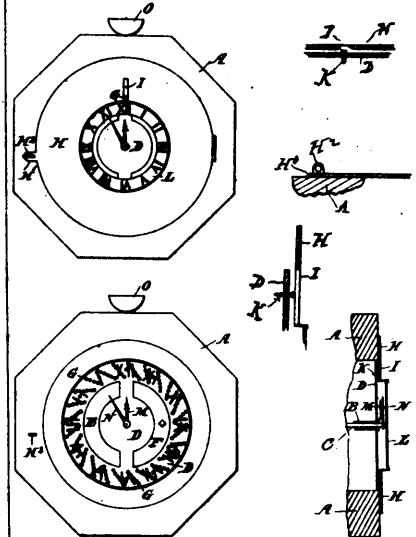
18773 Cantelon's Buggy Gear.



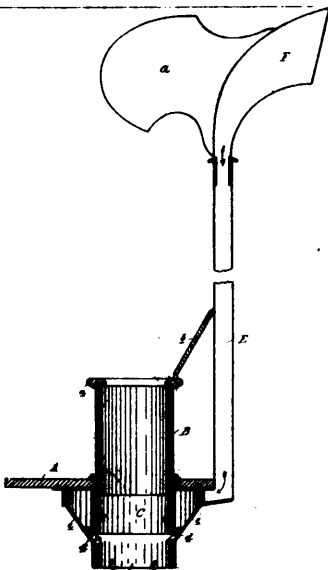
18774 Bailey's Store Window.



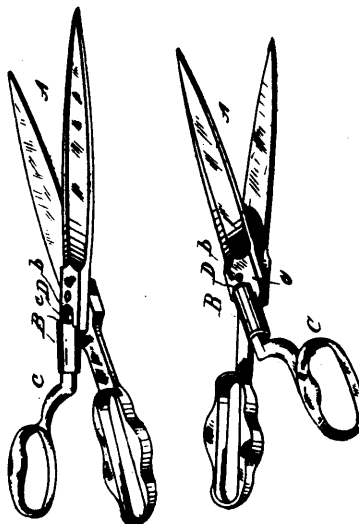
18775 English's Oil Can.



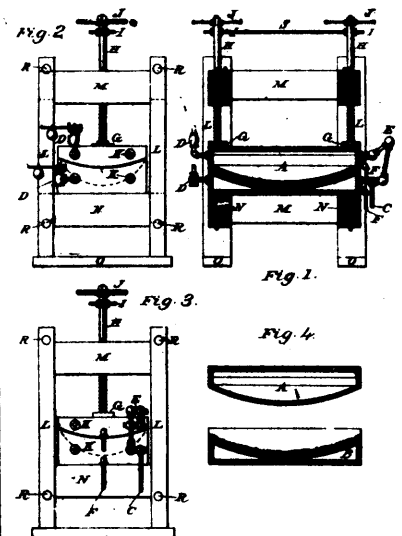
18776 Tremblay's Clock.



18778 McGovern & Harvey's Closet Ventilator.



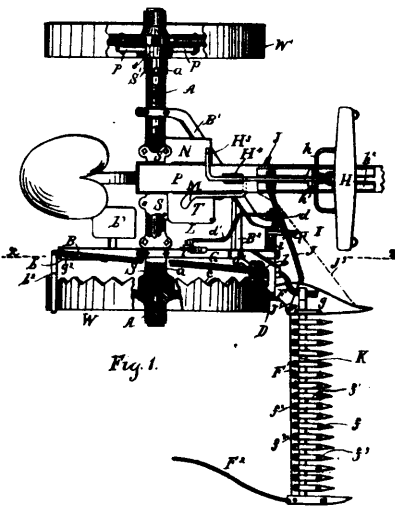
18779 Stark's Reversible Shears.



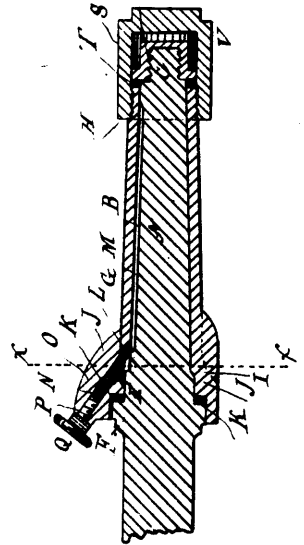
18781 Lochman's Steam Trunk Lid Press.



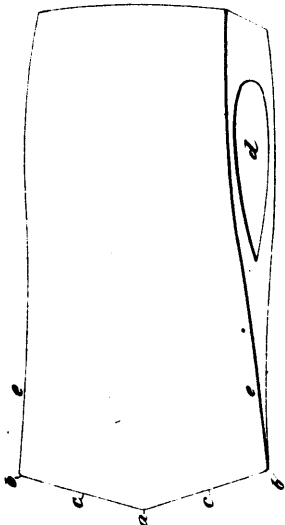
19782 Kennedy's Fire Escape.



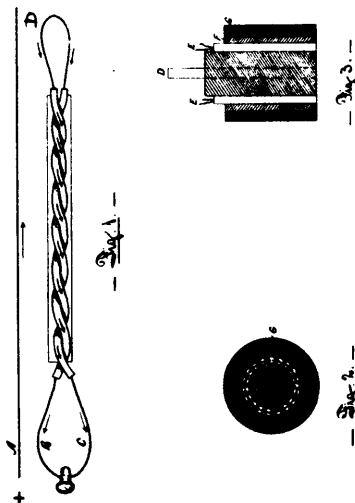
19783 Ravole's Mowing Machine.



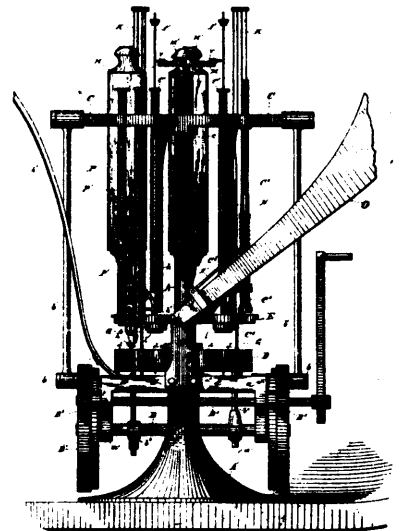
19784 Howe's Axle Lubricator.



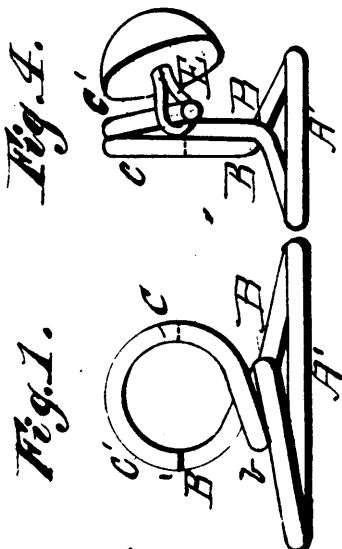
19785 Brooks' Axe Blade.



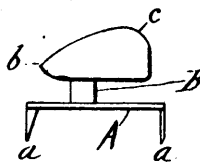
19786 Gisborne's Electric Circuit.



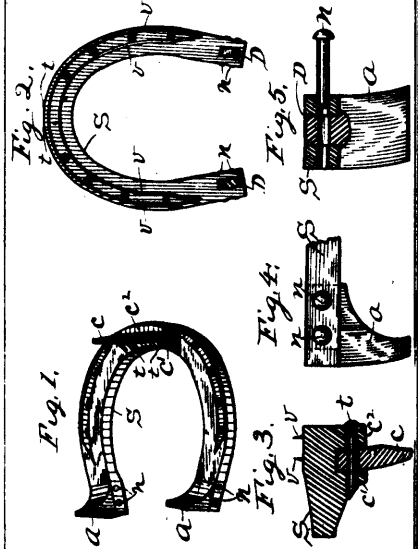
19787 Chamberlin's Cartridge-Loading Machine.



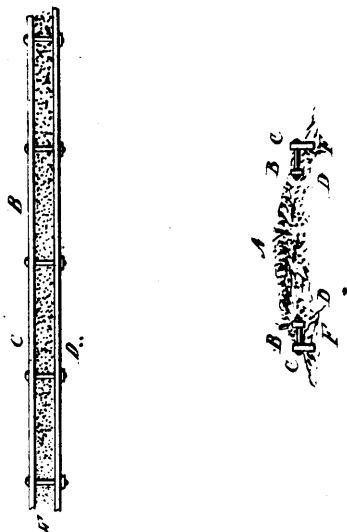
19789 Farnsworth's Button-Fastener.



19790 Ware's Glove-Fastener.



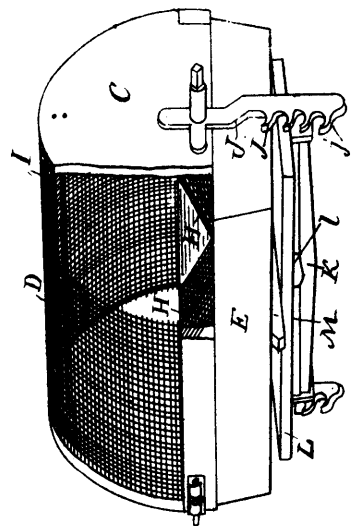
19791 Carrier's Horse Shoe.



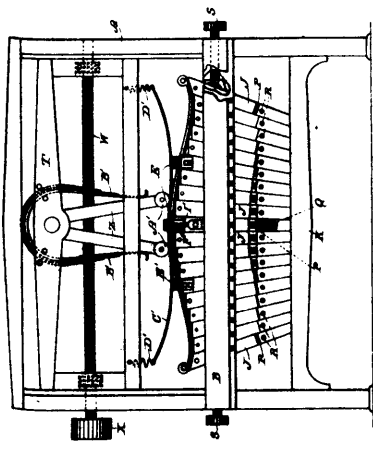
19782 De Forest's Improvement in Roads.



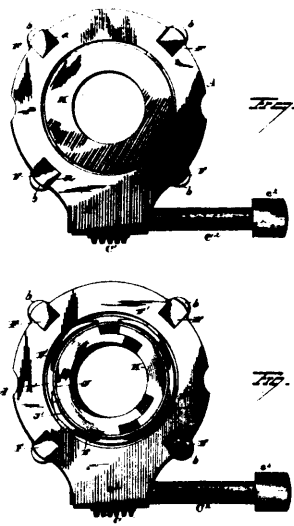
19793 Gifford's Towel-Holder.



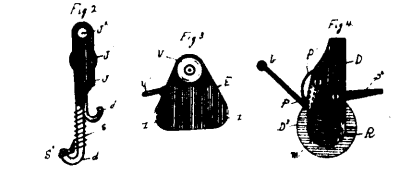
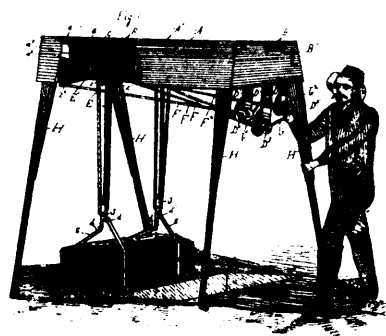
19794 Carmichael's Cinder Sifter.



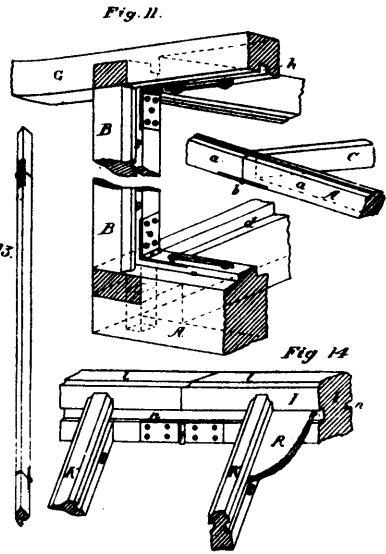
19795 Norwood's Machine for Forming Springs.



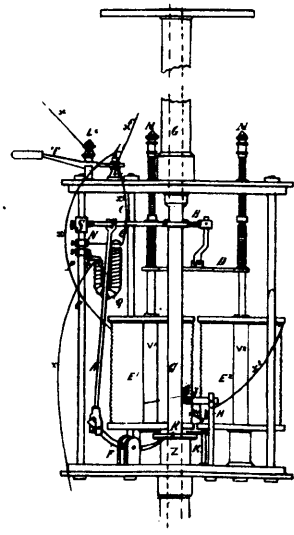
19796 Sleeper's Metallic Packing for Piston Rods.



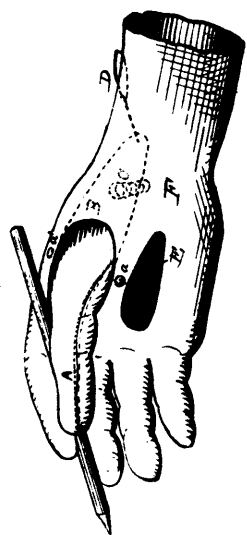
19797 Burns' Apparatus for Lowering Caskets into Graves.



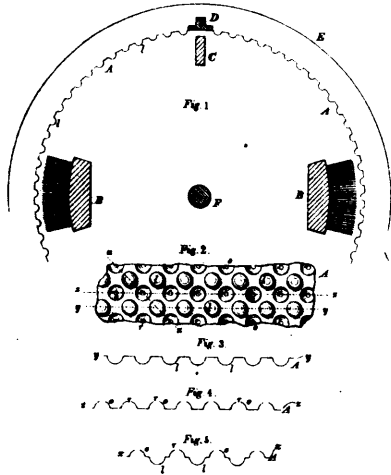
19798 Smith's Portable House.



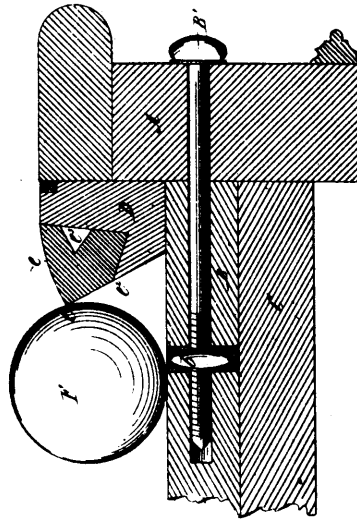
19799 Key's Electric Arc Lamp.



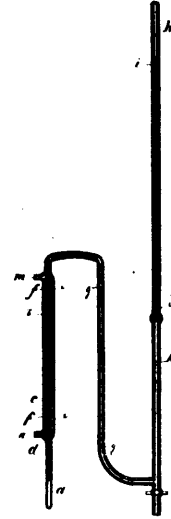
19800 Beachok & Sparham's Artificial Limb.



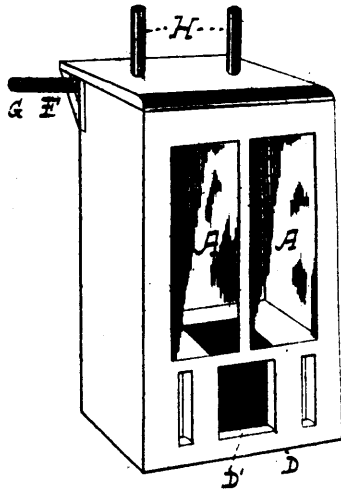
18801 Chase's Cylinder for Grain Scourers



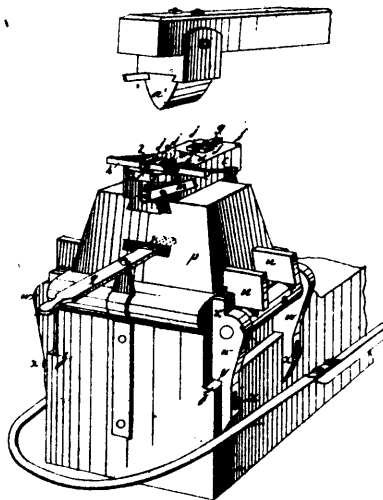
18803. Nightingale's Billiard Cushion.



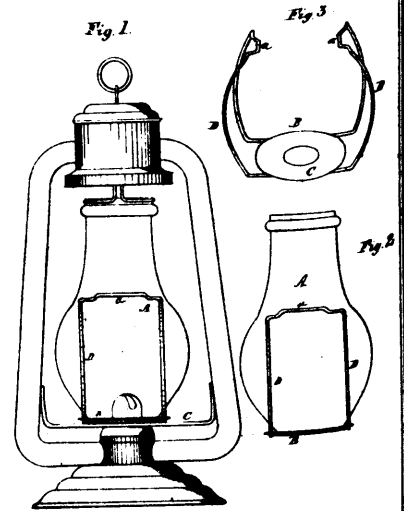
18804 Bellby's Apparatus for Thermometry.



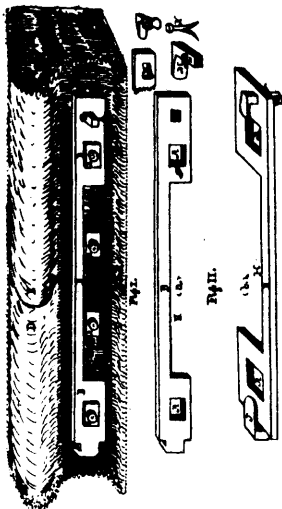
18805 Smith's Window.



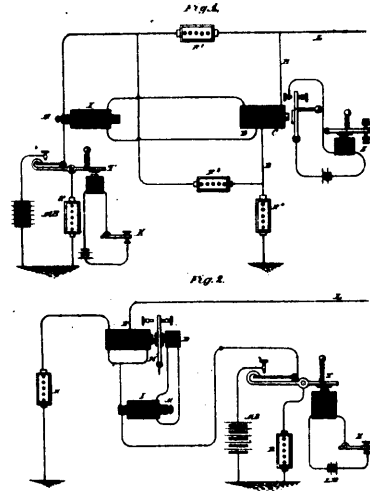
18806 Baker's Die and Die Block.



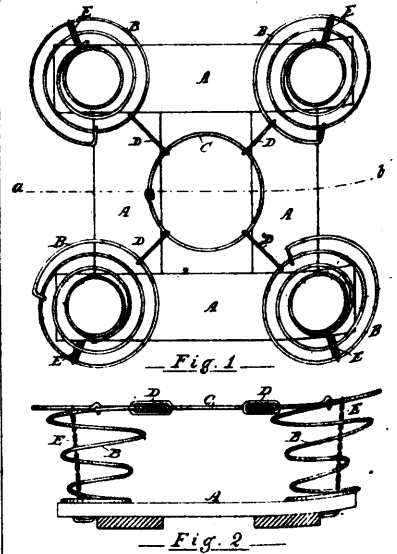
18807 Stone's Globe Guards for Tubular Lantern.



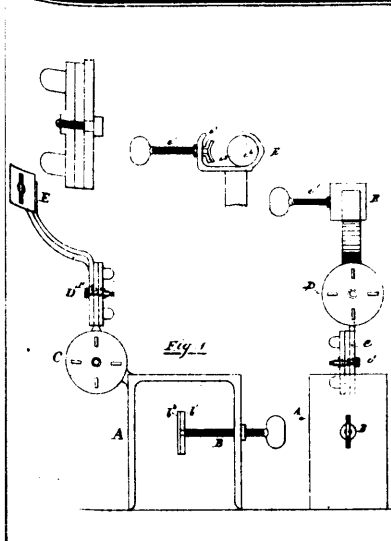
18808 Hébert & Butler's Nut Lock.



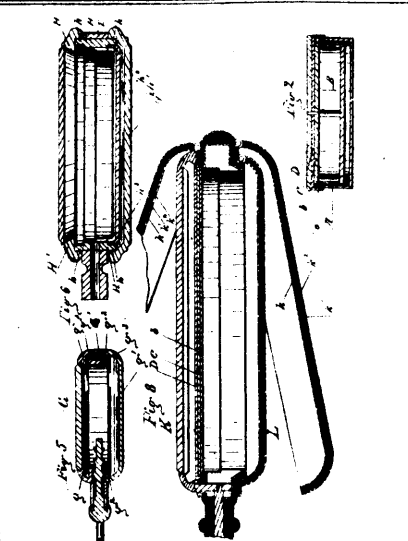
18809 Jones' Static Compensator for Telegraphs.



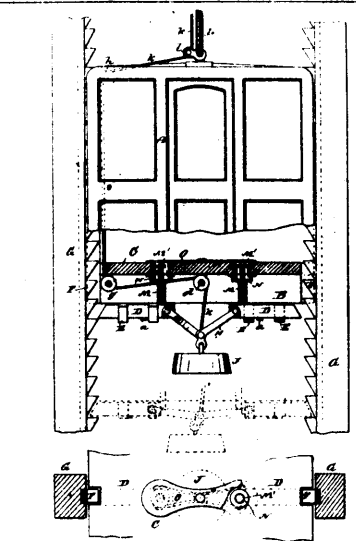
18810 Burnell's Bed Spring Connection.



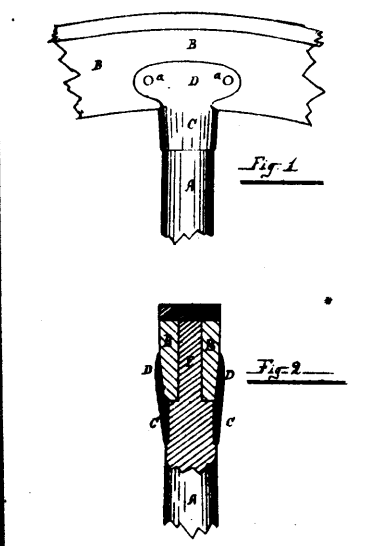
18811 Castle's Umbrella Holder for Vehicles.



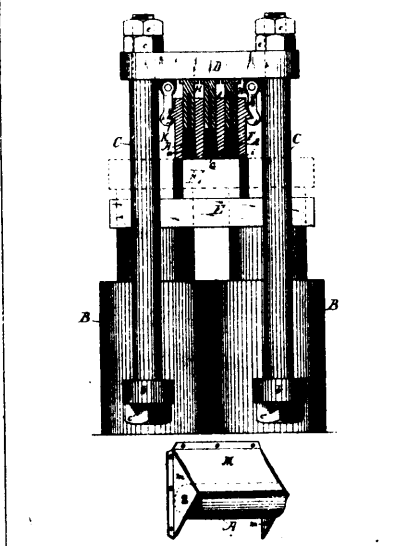
18812 Gile's Shield for Watches.



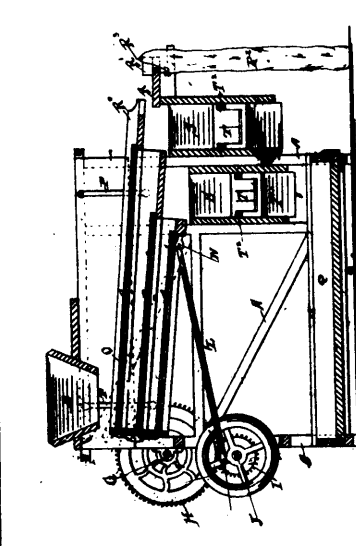
18813 Weeks' Safety Catch for Elevators.



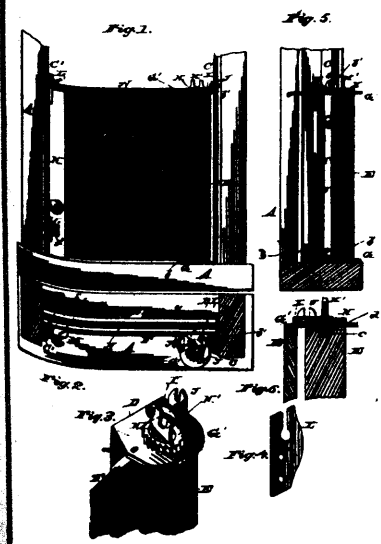
18814 Minchen's Spoke and Felloe Joints.



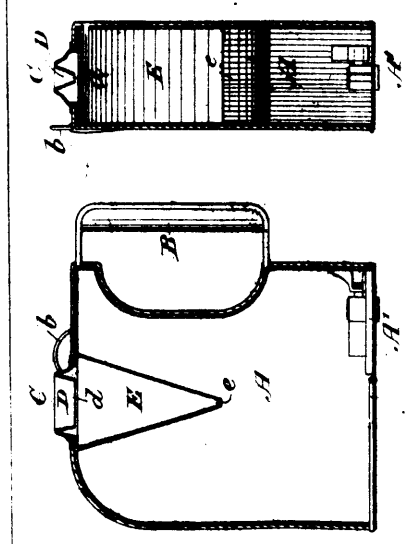
18815 Goldstein's Salt-Feeding Device.



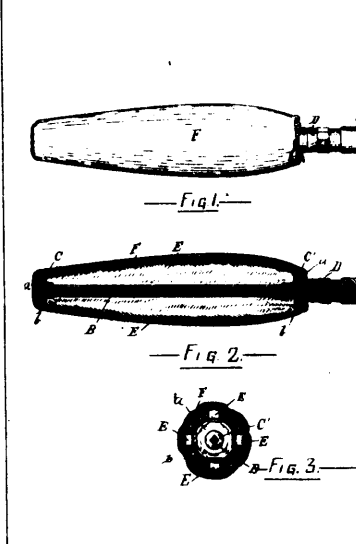
18816 Monette's Potato-Digger.



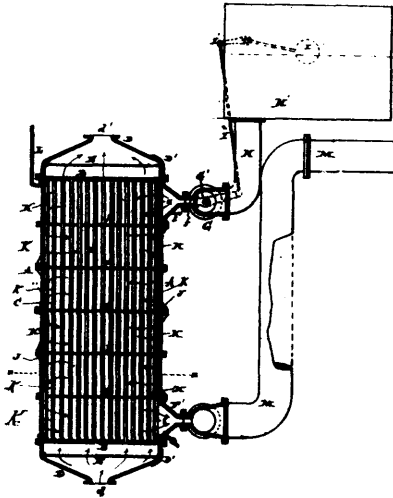
18817 Harley's Screen.



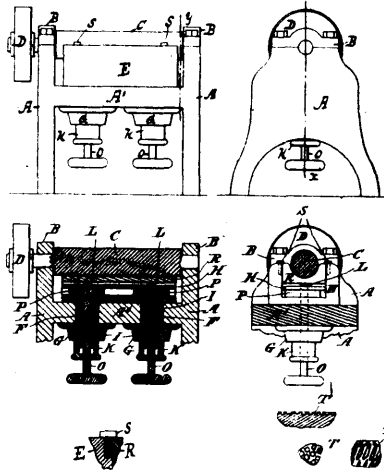
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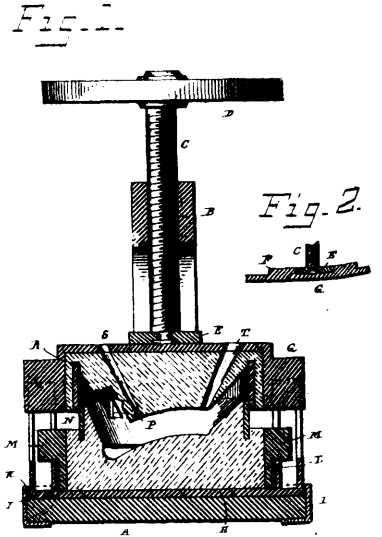
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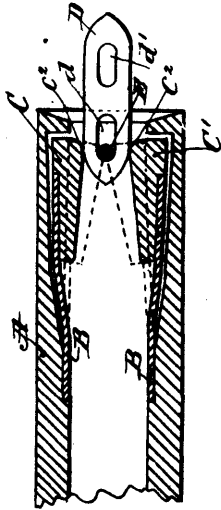
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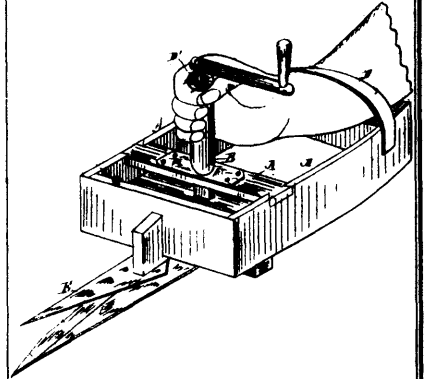
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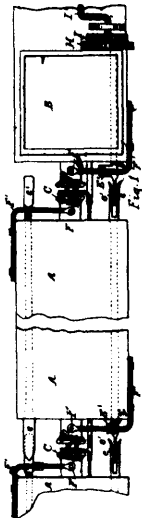
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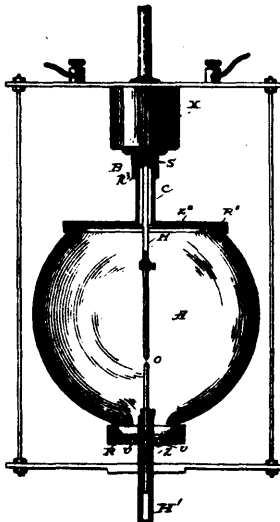
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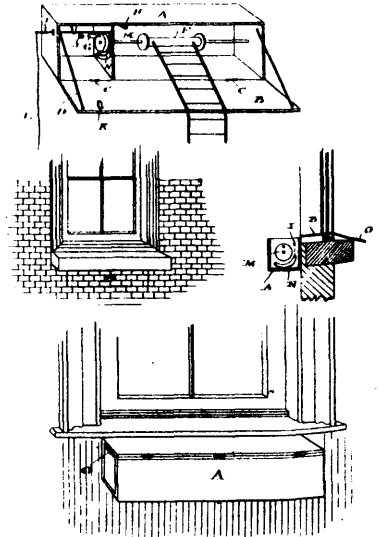
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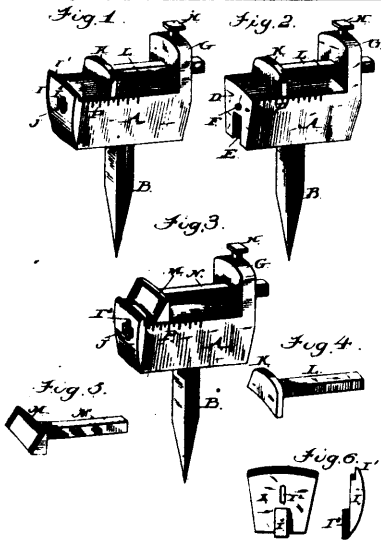
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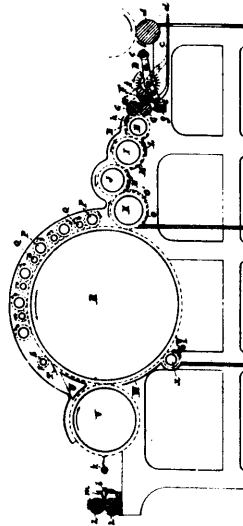
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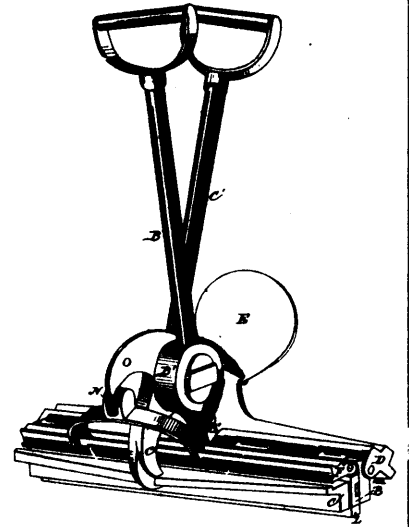
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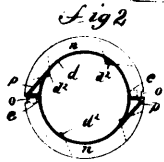
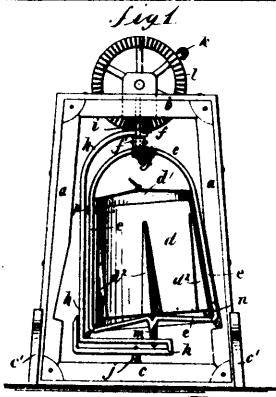
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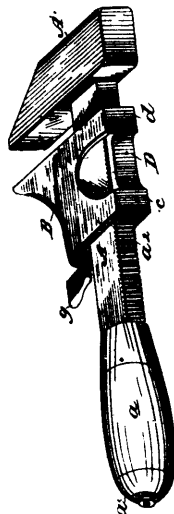
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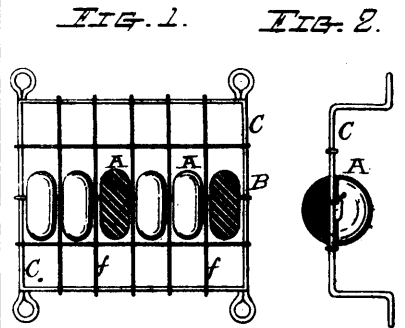
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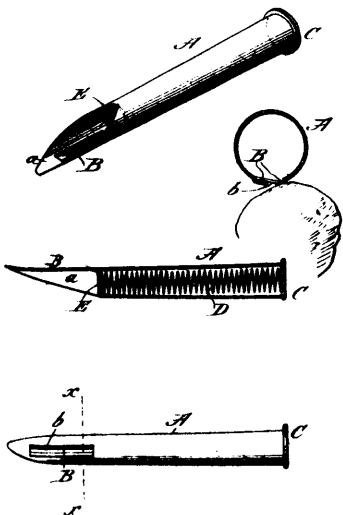
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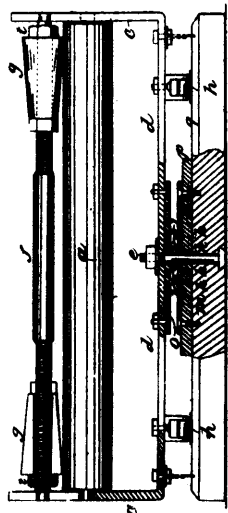
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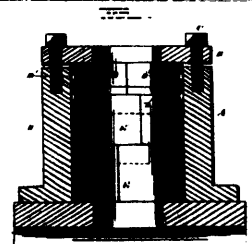
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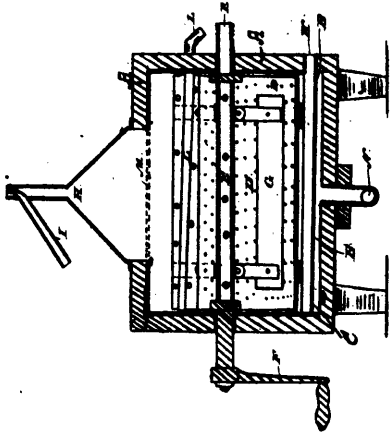


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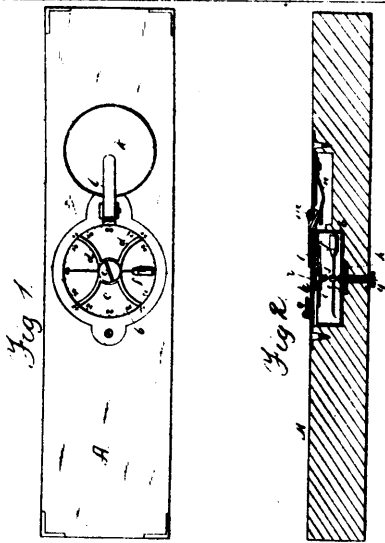


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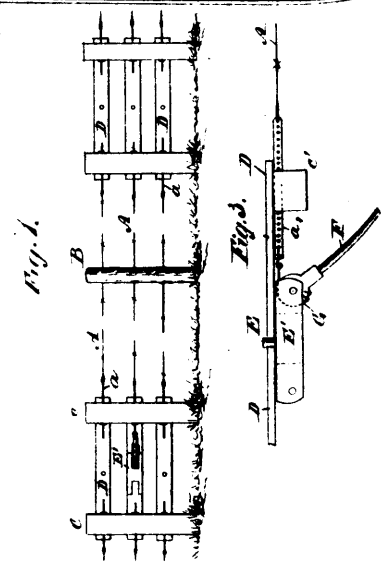




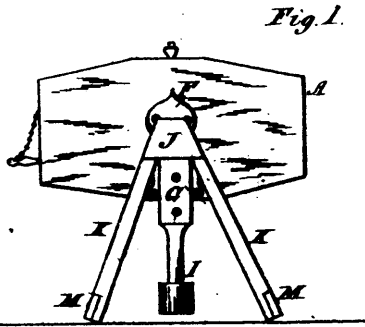
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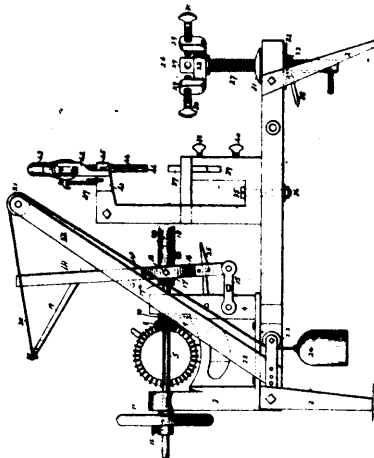
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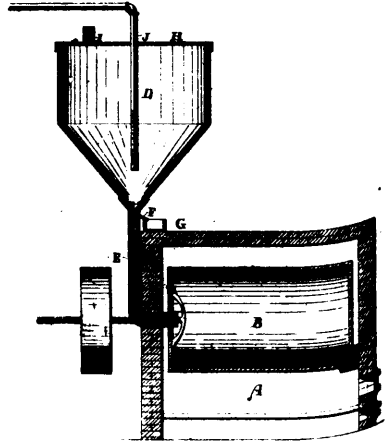
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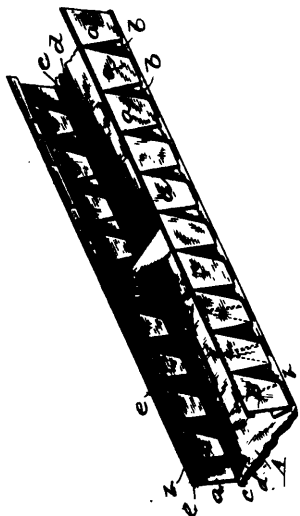
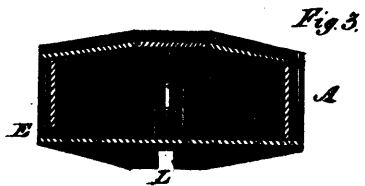
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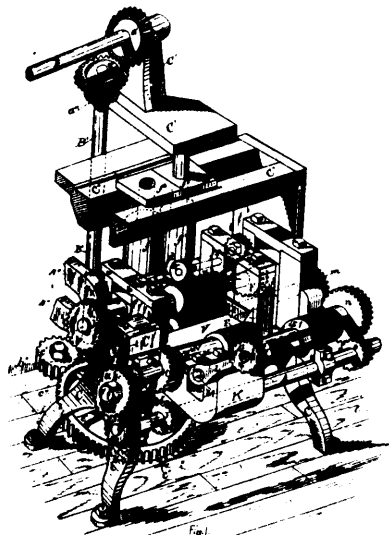
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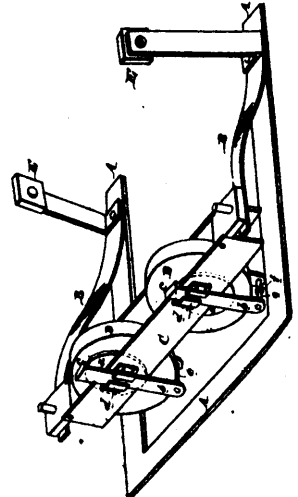
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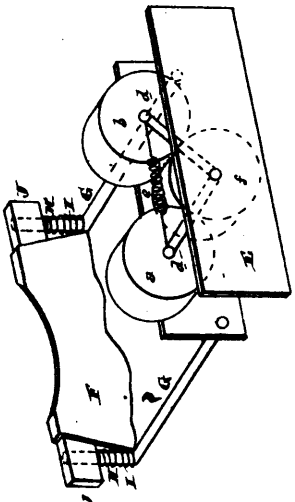
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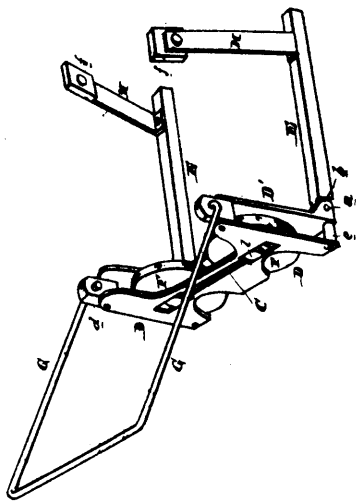
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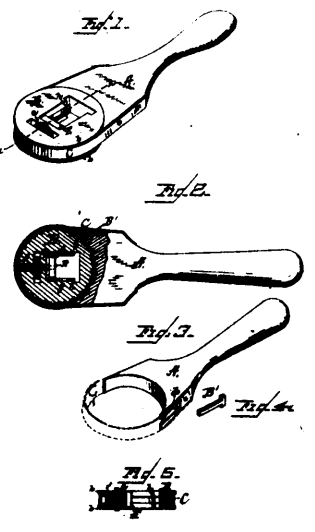
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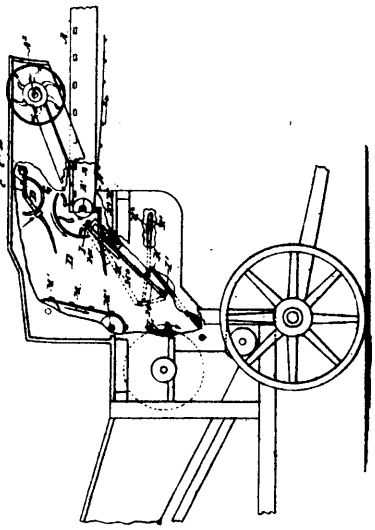
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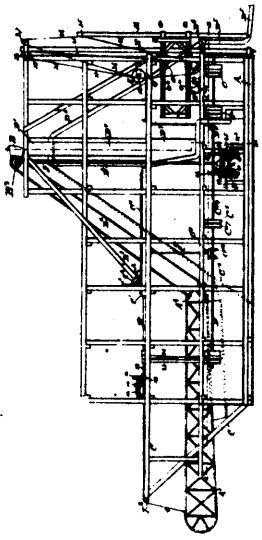
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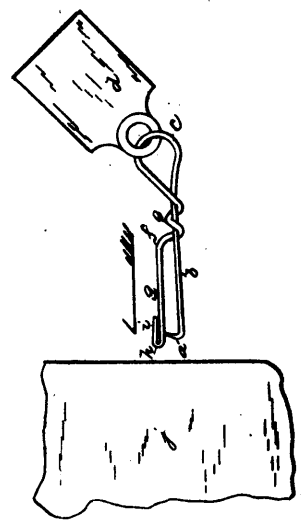
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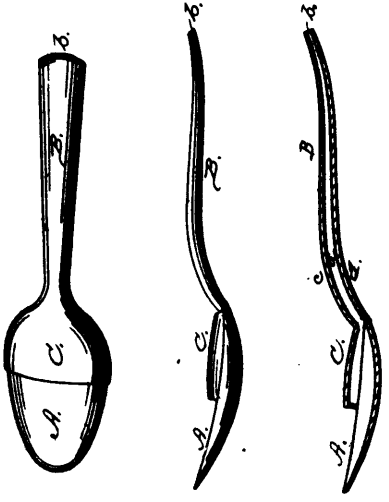
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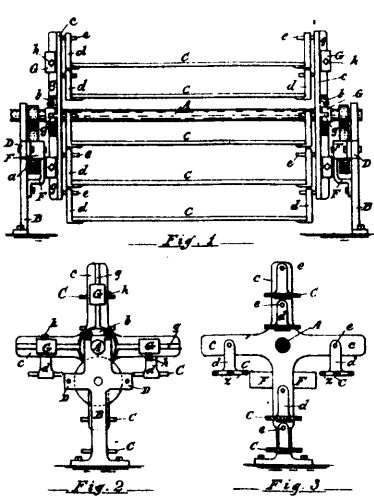
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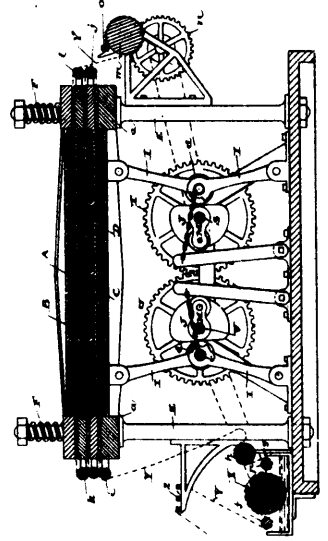
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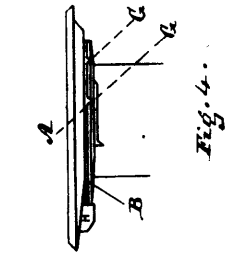


Fig. 4.

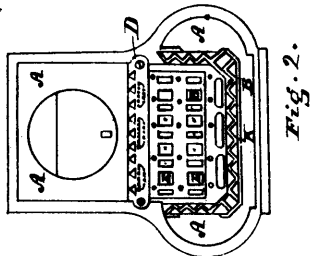


Fig. 2.

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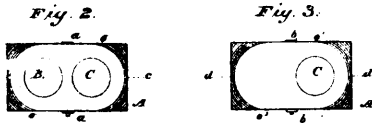
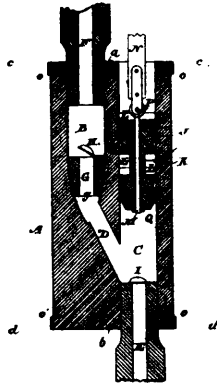


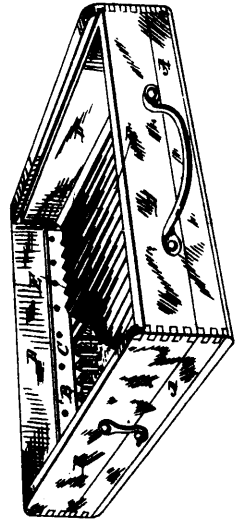
Fig. 2.

Fig. 3.

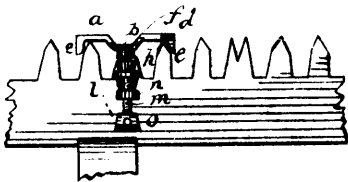
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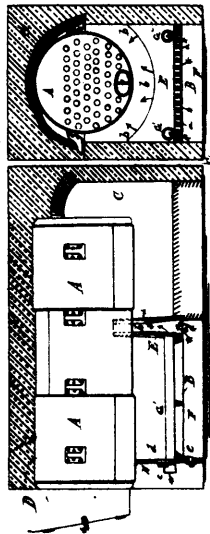
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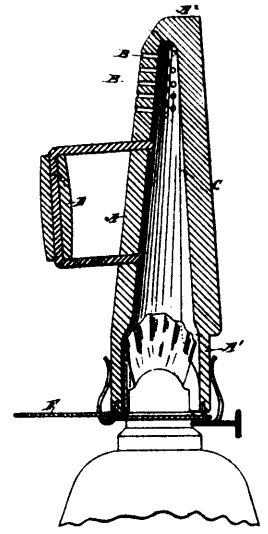
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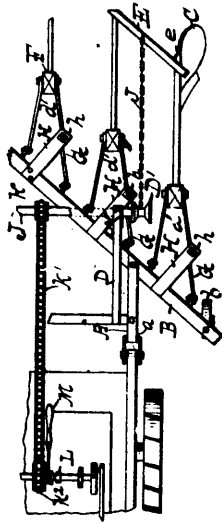
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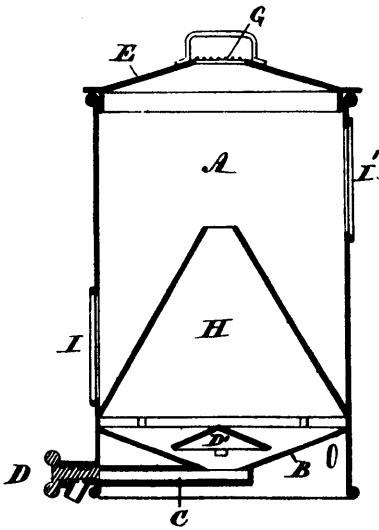
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18864 Chagnon's Smoothing Iron.



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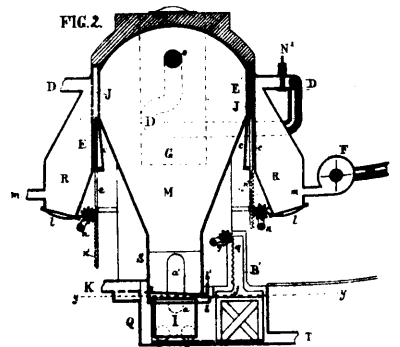


FIG. 2.

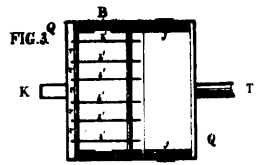


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