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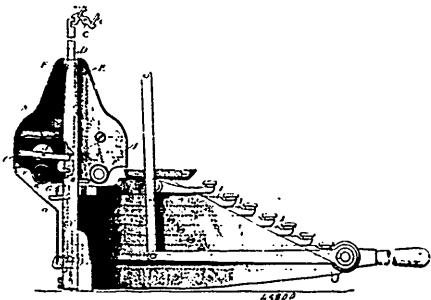
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### INVENTIONS PATENTED.

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#### No. 48,800. Linotype Machine. (Machine linotype.)

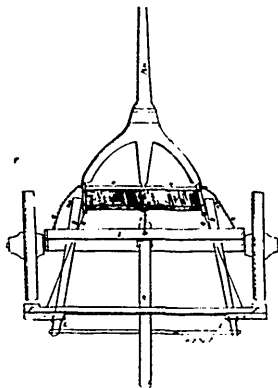


The Mergenthaler Linotype Co., New York, State of New York, assignee of Ottmar Mergenthaler, Baltimore, Maryland, both in the U.S.A., 1st May, 1893; 6 years.

*Claim.*—1st. In combination with the escapement device and its actuating rod, the actuating lever carrying an eccentric, the continuously driven roll thereunder and the finger-key mechanism for sustaining and releasing the lever, whereby the eccentric is held normally out of contact with the roller *e*, and the action of the keys is caused to throw into action the eccentric for operating the escapement. 2nd. In combination with the escapement operating rods, the actuating levers, their eccentrics, the constantly driven rolls, dogs to sustain the levers, the finger-keys and connections thence to the dogs. 3rd. In combination with the escapement operating rods, the springs connected thereto, the actuating levers, their eccentrics, the rolls, the finger key mechanism to sustain the lever *e* and the stop-pin movably mounted in the eccentric. 4th. In combination with escapement actuating rod *H*, the actuating lever, its eccentrics provided with a movable stop, the constantly driven roll, the lever sustaining dog, the dog actuating bar and a finger key connected thereto. 5th. In combination with type releasing device, an actuating mechanism, consisting of cams, carrying arms, rolls to turn the cams and thereby actuate the levers, means for holding the cams normally out of operative contact with rolls, and finger keys to trip them into action. 6th. In combination with the magazine and its series of escapement levers, the series of operating rods and means for throw-

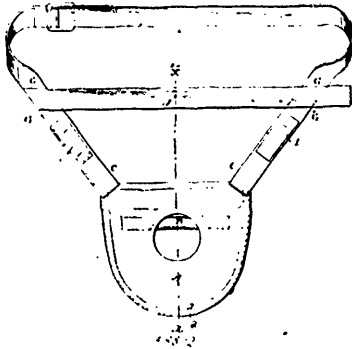
ing said rods into and out of engagement simultaneously. 7th. In combination with the magazine and the series of escapements, the series of operating rods, the guide plate through which they pass, and the rock-shaft and its arms and for adjusting said plates. 8th. In combination with the magazine, its escapements, and their actuating rods, the movable guide frame through which they pass, said frame adapted to engage the magazine and secure lateral alignment of the parts. 9th. In combination with the magazine, a channelled mouth-piece hinged to swing to and from its operative position in order to expose the mouth of the magazine. 10th. In combination with the main frame, the magazine detachably connected thereto and the channelled mouth-piece or guide hinged to swing from its operative position, and the spring arms whereby it is sustained. 11th. In combination with the magazine and the hinged channelled mouth-piece, the front plate *G*, hinged to the mouth-piece.

#### No. 48,801. Wagon Brake. (Frein de wagon.)



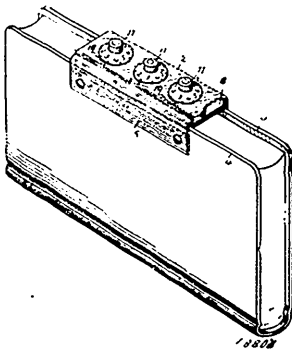
J. Norman Buckler, Dalhousie West, and Thomas R. Kelly, Uniake, both of Nova Scotia, Canada, 1st May, 1895; 6 years.

*Claim.*—1st. The combination with a wagon of a tip board *A A*, placed between the bounds *B B*, substantially as set forth. 2nd. The combination with a wagon of a tip board having brake-rods *G G*, attached to the cross bars an upper edge of tip board the other end of brake-rods *G G* being attached to the brake beam *F F*, substantially as set forth. 3rd. The combination with a wagon of a tip board *A A* and brake-rods *G G* and brake beam *F F* which is applied to the wheel and taken off the wheel automatically by the leverage and motion of the tip board *A A*, in connection with the rods, substantially as set forth. 4th. The combination with a wagon of a tip board *A A*, brake-rods *G G*, brake beam *F F*, and back chain *J* which is a locking device that prevents the tip board from moving and thus keeping the brake off the wheel whenever required, substantially as set forth.

**No. 48,802. Suspensory Bandage***(Bandage pour suspensoirs)*

John Tenschler, Sherwood, Oregon, U.S.A., 1st May, 1895; 6 years.

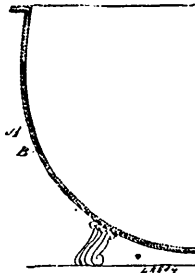
*Claim.*—In a suspensory bandage, a bag consisting of two duplicate parts adjustably seamed together at their meeting edges, an absorbent roll or pad extending partially across the upper rear edge of said bag, a pair of short straps attached to the front corners of the bag and disposed at an angle thereto, the main body belt having an auxiliary cross belt connecting the opposite side portions thereof, and elastic strips connecting the adjacent ends of said short connecting straps and the main body belt, substantially as set forth.

**No. 48,803. Lock. (Serrure.)**

The Cable Lock and Novelty Company, assignee of Daniel J. Cable, both of Pittsburg, Pennsylvania, U. S. A., 1st May, 1895; 6 years.

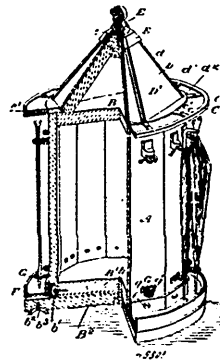
*Claim.*—1st. A lock, comprising a case or shield, having openings in the side for the insertion of a hasp plate; a plate provided with downwardly projecting lugs for engaging the hasp plate, capable of longitudinal movement within the case, controlled by one or more dial stems, passing through the openings in the movable plate, and provided with narrow portions designed to register with slotted extensions of said opening, and having at their upper portions numbered or lettered dials, designed to be set to a combination, substantially as shown and described. 2nd. A lock, comprising a case or shield having openings in the side for the insertion of a hasp plate, a plate provided with downwardly projecting lugs for engaging the hasp plate, and a narrower forwardly extending upturned finger piece; capable of longitudinal movement within the case, controlled by one or more dial stems, passing through openings in the movable plate, provided with narrower portions designed to register with slotted extensions of the openings, such openings being located to one side or the other of the center line for the purposes described; the dial stems having at their upper portions numbered or lettered dials, designed to be set to a combination by registering with a fixed point substantially as shown and described. 3rd. In combination with a lock, satchel or other similar article, a case rigidly secured to one side thereof, provided with a locking-bar capable of longitudinal movement therein, such movement being controlled by one or more dial stems passing through openings in the bar, the stems having

narrower flattened portions designed to enter longitudinal extensions of the openings in the bar and provided at their upper portions with numbered or lettered dials, designed to be set to a combination, and a hasp plate secured to the other side of the article provided with inwardly and forwardly shaped lugs designed to enter openings in the side of the case and to be engaged by downwardly projecting lugs on the locking bar, substantially as shown and described. 4th. In combination with a lock, satchel or other similar article, a case carrying a locking bar capable of longitudinal movement therein, such movement being controlled by one or more dial stems passing through openings in the bar, the stems having narrower flattened portions designed to enter longitudinal extensions of the openings in the bar and provided at their upper portions with numbered or lettered dials designed to be set to a combination; the case being provided with downwardly projecting hooks, removably attached to a retaining bar or plate secured to one side of the article, and a hasp plate secured to the other side of the article, provided with inwardly and forwardly shaped lugs, designed to enter openings in the side of the case, and to be engaged by downwardly projecting lugs on the locking bar, substantially as shown and described.

**No. 48,804. Bath Tub. (Baignoire.)**

George Booth, Toronto, Ontario, Canada, 1st May, 1895; 6 years.

*Claim.*—A bath tub made in three sections, each section of which is composed of a sheet metal outer casing having an inner casing of copper, aluminum or other light, flexible material and a lining of asbestos or other non-conducting material placed between the two casings, substantially as and for the purpose specified.

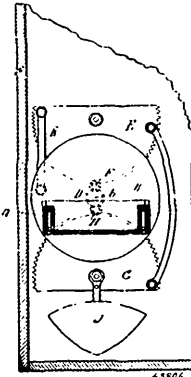
**No. 48,805. Umbrella Stand and Lock.***(Porte-parapluie et serrure.)*

Henry Archib Collins and Joseph McManus, both of Toronto, assignee of Herbert Ellsworth, London, all in Ontario, Canada, 1st May, 1895; 6 years.

*Claim.*—1st. In an umbrella stand, in combination, the wall, the outwardly extending top, the bottom trough, the rings above the bottom trough secured to the wall and the divided rings and lock secured to the wall beneath the outwardly extending top, as and for the purpose specified. 2nd. In an umbrella stand in combination, the wall, the outwardly extending top, and the annular groove around the top provided with advertising plates, strips extending over adjacent ends of the same and d screws to secure the strips down, as and for the purpose specified. 3rd. In combination the wall, the outwardly extending top, the pyramidal centre provided with adver-

tising plates, angle strips covering the edges of the plates and extending at the bottom into the top B, and crowned by the cap E, which is secured in place by the knob E', and as for the purpose specified. 4th. In an umbrella stand in combination the top and bottom connected by the walls, a base board supporting the bottom, a central bolt extending through the centre of the base board and bottom, and rollers secured to the outside near the outer edge of the bottom, as and for the purpose specified. 5th. The combination with the top plate bottom ring and trough, of the casing H, divided ring L, L', pivoted in the same, the top slot h, bit plate I, and disc K, provided with wards A, designed to drop into and through the casing, so as to release and permit of the opening of the divided ring, as and for the purpose specified. 6th. In combination, the casing H, having the top slot h, the bit plate I, with serpentine passage-way extending downwardly from same, opening at the bottom thereof, a divided ring pivoted at the bottom of the front portion of the casing, means for separating the rear ends of the rings and a disc K, provided with the wards A, designed to drop upon such means to withdraw it from between the rear end of the divided ring, as and for the purpose specified. 7th. In combination, the casing, bit plate, serpentine passage-way, pivoted dog with a tail, and forwardly and upwardly extending spring, and the pivoted divided ring L, L', having separated inner ends l and l', and as for the purpose specified. 8th. In combination, the casing, bit plate, serpentine passage-way, pivoted dog with a tail and forwardly and upwardly extending spring, the pivoted divided ring L, L', having separated inner ends l and l', and the spiral spring having the ends extending inwardly, one against each end l and l', as and for the purpose specified. 9th. In combination, the casing, bit plate, serpentine passage-way, divided ring, means extending into the inner end of the divided ring, so as to close the outer end, such means extending into the opening at the bottom of the passage-way, and a disc provided with wards designed to drop through the bit plate and passage-way, and thereby with draw the means of keeping the outer end of the ring closed, a guide-way J, extending from the opening and provided with a lower end to receive the disc, as and for the purpose specified.

**No. 48,806. Self-Levelling Berth. (Cabine.)**

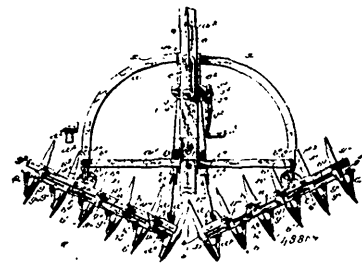


The Briggs Ship Berth Company, Portland, Maine, assignee of Thomas W. Briggs, assignee of William Thomas Milligan, both of Boston, Massachusetts, all in the U.S.A., 1st May, 1895; 6 years.

*Claim.*—1st. In a self levelling berth mechanism, the swinging berth pivoted to a fixed pivot well above its centre of gravity, a governor pivoted below it upon an independent axis and forming the long arm of a bell crank lever and a yoke mounted above said berth, one end of said yoke being connected with one edge of said berth, the other end being connected with the short arm of said governor lever, all as set forth. 2nd. In a self-levelling berth mechanism, a hanging berth, a governor swinging below it upon an independent axis and forming the vertical arm of a bell crank lever, and mechanism connecting the horizontal arm of said bell crank lever and said hanging berth, said mechanism consisting of a yoke pivoted above said berth and forming a lever having arms of substantially equal length and two connecting rods, one extending from the extremity of one arm of said yoke to said berth and being pivotally connected therewith, the other extending from the extremity of the other arm of said yoke to the horizontal arm of said bell crank, as and for the purpose set forth. 3rd. The self levelling berth above described carrying a gear D, the axis of said berth and of said gear being coincident, in combination with a geared yoke or segment E, located above it, the pinion F located to engage therewith and with said segment E, and a weighted geared yoke or seg-

ment C, located below it and the pinion H, located to engage with said segment and with the pinion D, and connecting rods connecting said segments G and F and the berth, as set forth. 4th. In a self-levelling berth mechanism, in combination, a hanging berth carrying a gear D, the axis of said berth and said gear being coincident, and a weighted geared segment G located below it, and the pinion H located to engage with said segment and with the pinion D, as set forth. 5th. In a self-levelling berth, two governors of the kind described, one located at each end of the berth, in combination with two yokes, one located at each end of the berth, and each connected with said berth and with one of said governors, the connections between each yoke and its governor being upon the same side of the axis of the berth as the connection between the other yoke and the berth, as set forth. 6th. The self-levelling berth above described, having a governor located at each end thereof and connected thereto in the manner described, one of said governors being connected with the outer edge of the berth and the other with the inner edge thereof, as set forth. 7th. In a self levelling berth, two governors of the kind described, one located at each end of the berth, in combination with two yokes, one located at each end of the berth and each connected with said berth and with one of said governors, the connections between each yoke and its governor being upon the same side of the axis of the berth as the connection between the other yoke and the berth, as set forth. 8th. In a self-levelling berth, mechanism in combination, a berth pivotally hung from a vertical lever of the first order, and means substantially as described whereby the upper end of said lever is oscillated to move the axis of the berth laterals, in combination with mechanism whereby said berth is oscillated about its axis, as set forth. 9th. In a self levelling ships berth, mechanism whereby the berth is moved laterally while it maintains a horizontal position, said mechanism consisting of a lever pivoted to a suitable support and pivotally connected at its lower end to the berth, its upper end being provided with a slot, a yoke pivoted above the berth to said support and having a vertical arm provided at its lower end with a pin located in said slot, a weighted lever hung below said berth and connections substantially as described between said governor, said yoke, and said berth, all as and adapted for the purposes described.

**No. 48,807. Disc Harrow. (Herse à disque.)**



Marquis J. Todd, Buffalo, New York, U.S.A., 1st May, 1895; 6 years.

*Claim.*—1st. A harrow having its draft-frame provided with a rigid-bar, two disc-gangs having near their outer ends angularly slotted ears to which the ends of said bars are connected, ears and plates near the inner ends of said gangs having holes or openings therein, and the adjusting bars having their ends passed through said holes or openings of said ears and plates, substantially as set forth. 2nd. A harrow having its draft-frame provided with a rigid bar, two disc gangs having near their outer ends forwardly projecting ears provided with angular slots in which fit the hooked ends of said rigid bar, forwardly projecting ears at or near the inner ends of said gangs having holes or opening, plates on the rear of said gangs having openings therein, and adjusting bars having their ends passed through said openings of said latter ears and plates, substantially as set forth. 3rd. A harrow having two pivotally mounted gangs of disc springs or spring-pressure on the inner end of each gang for bearing down on the latter, and means for adjusting said gangs, substantially as set forth, said gangs being free to rise at their inner ends each independently of the other, as stated. 4th. A harrow having two pivotally mounted gangs of discs, means connected to the inner ends of said gangs for adjusting the latter, and independent springs for bearing down the said inner ends of said gangs, substantially as set forth. 5th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near their inner ends, and independent springs bearing downwardly upon said bars at or near their connections to said gangs, substantially as set forth. 6th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near their inner ends, springs bearing upon said bars, and means for regulating the tensions of said springs, substantially as set forth. 7th. A harrow having two pivotally mounted gangs of discs,

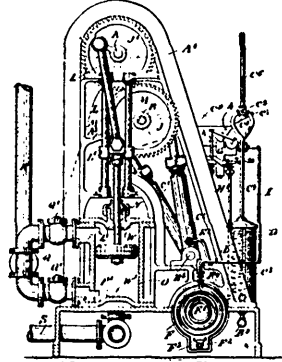
adjusting bars connected to said gangs at or near their inner ends, springs bearing downwardly upon said bars, a crank shaft bearing upon said springs, and means for holding the same at any point of adjustment, substantially as set forth. 8th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near the inner ends thereof, two plate-springs located over said bars and having bent or curved portions constantly held in contact with said bars and means for adjusting the tension of said springs, substantially as set forth. 9th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near the inner ends thereof, two plate-springs having bent ends provided with slots through which said bars are passed, said springs having inwardly extended portions bearing upon said bars, substantially as set forth. 10th. A harrow having its draft-frame provided with a rigid-bar, two gangs of discs having angularly slotted ears near their outer ends engaged by said rigid bar, two adjusting bars connected to said gangs at or near their inner ends, and a ring located between said adjusting bars and bearing outwardly thereon, substantially as set forth. 11th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near the inner ends thereof, two plate-springs secured at their outer ends and having inwardly bent portions at their inner ends, said latter ends having slots through which said bars project, and a tension regulator bearing on said springs near their secured ends, substantially as set forth. 12th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near the inner ends thereof, two plate-springs secured at their outer ends and having inwardly bent portions at their inner ends, said latter ends having slots therein through which said bars project, a crank-shaft designed to bear on said springs at or near their secured ends, and means for adjusting and holding said crank-shaft, substantially as set forth. 13th. In a harrow the combination with the draft-frame and the pole, said frame having a rigid bar provided with hooked ends, of the two gangs of discs having ears near their outer ends provided with angular slots therein for reception of the said hooked ends of said bar and the ears and plates also extending from said gangs near the inner ends thereof, said ears and plates having openings thereon, the adjusting bars having their inner ends extended through the said openings of said ears and plates, the plate-springs secured at their forward ends to said draft-frame and bearing upon said adjusting bars at or near the lower ends of the latter, and a crank-shaft for engaging said springs near their secured ends, substantially as set forth. 14th. A harrow having two pivotally mounted gangs of discs, adjusting bars connected to said gangs at or near the inner ends thereof, the plate-springs secured at their outer ends to said draft-frame and having inner slotted bent ends through which said bars project, and the crank-shaft having rollers thereon designed to bear upon said springs, substantially as set forth. 15th. The combination with the draft-frame, the gangs of discs, and the adjusting bars, of the springs bearing on said bars, the crank-shaft designed to bear upon said springs, the foot-lever fulcrumed to said crank-shaft, the toothed quadrant, and means for normally holding said foot-lever in engagement with said quadrant, substantially as set forth. 16th. The combination with the draft-frame, the gangs of discs, and the adjusting bars, of the springs bearing on said bars, the crank-shaft designed to bear upon said springs and having an outer angular end, the foot-lever fulcrumed on said crank-shaft and having a side-rod to accommodate said angular end, an interposed spring normally forcing said lever upward, and the quadrant designed to be engaged by said lever, substantially as set forth. 17th. In a disc-harrow having an upper frame, a series of scrapers, a movable bar loosely held to said frame and to which said scrapers are connected, and a spring or springs for binding said movable bar and holding the same at any point to which adjusted, substantially as set forth. 18th. In a disc-harrow having an upper frame, a series of scrapers, a movable bar loosely held to said frame and to which said scrapers are connected, and a frictional clutch for binding said bar at any point to which adjusted, the same comprising a spring and an inner chamber held by said spring tight against said movable bar, substantially as set forth. 19th. In a disc-harrow having an upper frame, a series of scrapers having a bar loosely connected to said frame, means for adjusting said bar, and a spring-connected lug or lugs designed to bear upon and hold said bar at any point to which adjusted, substantially as set forth. 20th. In a disc-harrow having an upper frame, a series of keeper-plates secured to said frame having openings therein, a series of scrapers having a bar movable in said keeper-plates, a lug located in said opening of said keeper-plates, and a spring bearing on said lug, substantially as set forth. 21st. In a disc-harrow having an upper frame, a series of keeper-plates secured to said frame having openings therein, a series of scrapers having a bar movable in said keeper-plates, a lug located in said opening and having a head flanged at its ends, and a plate-spring secured at one end, its free end bearing on said head of said lug and fitting between said end flanges, substantially as set forth.

#### No. 48,808. Motor. (Moteur.)

Leon Abbott, Hoboken, New Jersey, assignee of Lewis Boyd White, New York, State of New York, both in the U.S.A., 1st May, 1895, 6 years.

Claim—1st. The method of operating a motor by means of com-

pressed carbonic acid, consisting in alternately heating and cooling the carbonic acid for producing the power, by alternately bringing it in contact with heated and cooled carbonic acid, substantially as herein described. 2nd. The method of operating a motor by means of compressed carbonic acid, consisting in alternating heating and cooling the compressed carbonic acid for producing the power, by



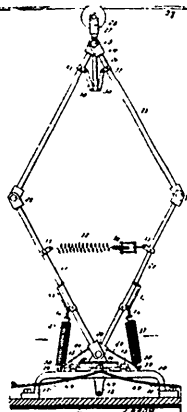
alternately bringing it in contact with heated and cooled carbonic acid, and subjecting it to pressure while in contact with the cooled carbonic acid, substantially as herein described. 3rd. The method of operating a motor by means of compressed carbonic acid, consisting in alternating heating and cooling compressed carbonic acid in one and the same vessel, substantially as herein described. 4th. The method of operating a motor by means of compressed carbonic acid, consisting in alternately heating and cooling the carbonic acid in one and the same vessel and subjecting it to pressure while cooling it, substantially as herein described. 5th. The method of operating a motor by means of compressed carbonic acid consisting in expanding it in a closed vessel by means of heat, then cooling it in the same vessel and at the same time subjecting it to pressure in the same vessel, substantially as herein described. 6th. The method of operating a two cylinder motor, each of single stroke, by means of compressed carbonic acid, consisting in heating the compressed carbonic acid in one cylinder and at the same time cooling the carbonic acid in the other cylinder, substantially as herein described. 7th. The method of operating a two cylinder motor, each cylinder of single stroke, by means of compressed carbonic acid consisting in heating the compressed carbonic acid in one cylinder, then equalizing the pressure of the compressed carbonic acid in the two cylinders and then cooling and compressing the carbonic acid in the second cylinder, substantially as herein described. 8th. The method herein described of operating a two cylinder motor, each of single stroke, by means of compressed carbonic acid, consisting in producing the pressure in the cylinder having its plunger on the outstroke, equalizing the pressure in both cylinders when the pistons are on the half stroke and cooling the carbonic acid in the second cylinder when the plunger of the same is on the second half of the stroke, substantially as herein described. 9th. In a motor, the combination with a cylinder and a plunger therein, of a single conducting pipe connected with the cylinder and inter separate chambers arranged in the length of said pipe, for heating and cooling the motor fluid in said pipes, substantially as herein shown and described. 10th. In a motor, the combination with a cylinder and a plunger therein, of a single pipe connected with the cylinder, a heating chamber and a cooling chamber arranged in the length of said pipe, means for heating the heating chamber and means for cooling the cooling chamber, substantially as herein shown and described. 11th. In a motor, the combination with a cylinder and a plunger therein of a single pipe connected with the cylinder a heating chamber and a cooling chamber arranged in the length of said pipe, means for heating the heating chamber, and means for cooling the cooling chamber at intervals, substantially as herein shown and described. 12th. In a motor, the combination with a cylinder and a plunger therein, of a single pipe connected with said cylinder, a heating chamber and a cooling chamber formed in the length of said pipe, means for heating the heating chamber, and means for flowing water upon the cooling chamber, substantially as herein shown and described. 13th. In a motor, the combination with a cylinder, and a plunger therein of a single pipe connected with said cylinder, a heating chamber and a cooling chamber formed in the length of said pipe, means for heating the heating chamber, means for flowing water upon the cooling chamber, and means for interrupting the flow of water, substantially as herein shown and described. 14th. In a motor, the combination with a cylinder and a plunger therein, of a single pipe connected with said cylinder, a cooling chamber and a heating chamber formed in the length of said pipe and a cooling

trolling valve arranged in said pipe, substantially as herein shown and described. 15th. In a motor, the combination, with two cylinders, of a single pipe connected with each cylinder, a cooling coil formed in the length of each of such pipes, a valve with which said two cooling chambers are connected and a heating chamber likewise connected with said valve, substantially as herein shown and described. 16th. In a motor, the combination, with two cylinders and a plunger in each, which plungers are connected with the same crank-shaft, of a separate cooling coil for each cylinder, the bottom of each cooling coil being connected with the bottom of its respective cylinder and a heating chamber with which the upper ends of the said two coils are connected and a controlling valve, substantially as herein shown and described. 17th. In a motor, the combination with a cylinder and a plunger therein, of a single pipe connected with said cylinder and a heating coil and a cooling coil formed in the length of said pipe, the top of the cooling coil being at the same elevation as the bottom of the cylinder, substantially as herein shown and described. 18th. In a motor, the combination with a cylinder and a plunger therein, of a cooling coil having one end connected with the bottom of the cylinder and a heater connected with the other end of the cooling vessel, substantially as herein shown and described. 19th. In a motor, the combination with a cylinder and a plunger therein, of a cooling coil having one end connected with the bottom of the cylinder, a heater connected with the opposite end of the cooling coil and a valve interposed in the connection between the heater and the bottom of the coil, substantially as herein shown and described. 20th. In a motor, the combination with two cylinders and a plunger in each, of a cooling coil connected with each cylinder, a valve connected with the two cooling coils, a heater connected with said valve, and means for conducting a cooling medium upon either cooling coil, substantially as herein shown and described. 21st. In a motor the combination with two cylinders each containing a plunger, of a valve casing, a pipe connecting said valve casing with each cylinder, and a double seating valve in said casing for establishing connection between the two cylinders or cutting off either cylinder, substantially as herein shown and described. 22nd. In a motor, the combination with two cylinders, each containing a plunger, of two cooling coils each having one end connecting with the bottom of one cylinder, a valve casing with which the opposite ends of said coils are connected and a two seat valve in said casing for shutting off either cylinder or connecting the two cylinders with each other, substantially as herein shown and described. 23rd. In a motor, the combination with two cylinders, each containing a plunger, of two cooling coils, each having one end connected with the bottom of one cylinder, a valve casing with which the opposite ends of the coils are connected and a two seat valve in said casing, an inlet pipe leading to said casing and a separate valve for controlling the inlet pipe, substantially as herein shown and described. 24th. In a motor, the combination with two cylinders each containing a plunger, of two coils, each connected with the bottom of one cylinder, a valve casing with which the two coils are connected, a two-seat valve in said casing, an inlet pipe leading to the casing, a valve controlling the inlet pipe leading to the casing, a valve controlling the inlet pipe, and a rocking shaft for controlling the inlet valve and the double seat valve, substantially as herein shown and described. 25th. In a motor, the combination with two cylinders, each containing a plunger, of two cooling coils, each having one end connected with the bottom of one cylinder, a valve casing with which the opposite ends of the coils are connected, a two-seat valve in said casing, an inlet pipe leading into the casing, a valve controlling said inlet pipe, a rocking shaft on the casing for operating the inlet valve, and the double seat valve, an eccentric on the shaft driven by the plungers and a connection between said eccentric and the rocking shaft on the valve casing, substantially as herein shown and described. 27th. In a motor, the combination with two cylinders and a plunger in each, of a cooling coil connected with each cylinder, a valve casing connected with each coil, a valve in said casing for controlling the pipes leading to the cooling coils, an eccentric on the shaft driven by the plungers, for operating said valves, means for admitting a cooling medium upon each cooling coil, which means are controlled by the same eccentric which operates the valves in the above mentioned casing, substantially as herein shown and described. 28th. In a motor, the combination with two cylinders each containing a plunger, of a cooling coil connected with each cylinder, a valve casing connected with the valve casing to the coils, an eccentric on the shaft driven by the plungers, for operating said valves, pipes for conducting water to the cooling coils and a cock for controlling the flow of water in said pipes which cock is connected with the same eccentric that operates the valves in the casing, substantially as herein shown and described. 29th. In a motor, the combination with two cylinders and a plunger in each, of a cooling coil connected with each cylinder, a valve casing connected with the two cooling coils, a valve in said casing for controlling the two pipes leading to the two cooling coils, an inlet pipe in said casing, a valve controlling said inlet pipe, a rocking

shaft for operating the valves in the casing, an eccentric on the shaft driven by the plungers and serving to operate the rocking shaft of the casing, pipes for conducting water to the cooling coils, a cock in said pipes which cock is operated from the same eccentric that operates the rocking shaft on the valve casing, substantially as herein shown and described. 30th. In a motor, the combination with two cylinders and a plunger in each, of a valve casing connected with the two cylinders, a two-seat valve in the casing, a stem on which said valve is secured, means for moving said stem lengthwise and a spring pressed double bevelled head acting on said valve stem, substantially as herein shown and described. 31st. In a motor, the combination with two cylinders and a plunger in each, of a valve casing connected with the two cylinders, a double seat valve in said casing, a valve stem on which the valve is secured, means for shifting said valve lengthwise, and means for locking said stem in place temporarily, substantially as herein shown and described. 32nd. In a motor, the combination with a valve casing, of two pipes connected therewith, a channel being formed in said casing leading to each pipe, and also a chamber formed between the inner ends of said channels, an inlet pipe connected by a channel with said chamber, a two seat valve secured on a stem within said chamber, to close either of the two channels leading to said chamber and a valve in the channel leading from the inlet pipe to said chamber, substantially as herein shown and described. 33rd. In a motor, the combination with a valve casing, of a horizontally moving stem in the same, a double seat valve within the casing and on said stem, links connected with one end of said stem, angle levers pivoted to the side of the casing and to said links, a rocking shaft on the casing, arms on said rocking shaft, and links connecting the arms on the rocking shaft with the above mentioned angle levers pivoted to the side of the casing, substantially as herein shown and described. 34th. In a motor, the combination, with a valve casing of a sliding valve stem within the same, a double seat valve on said stem, links connected with said stem, angle levers pivoted to the side of the casing, and to said links, a rocking shaft on the casing, arms on said rocking shaft, links connecting the arms on the rocking shaft with the above mentioned angle levers pivoted to the side of the casing, a notched rocking shaft in the casing, a valve on which the notched shaft acts, crank discs on the ends of notched rocking shaft and links connecting said crank discs with the arms of the rocking shaft on the valve casing, substantially as herein shown and described. 35th. In a motor, the combination, with two cylinders and a plunger in each, of a cooling coil connected with each cylinder, a heating chamber connected with the two cooling coils, a valve chamber containing a valve for controlling the communication between either the cooling chamber or the heating chamber and for equalizing the pressure in the two cylinders, substantially as herein shown and described.

No. 48,909. Trolley Stand and Pole.

(Support de trolley et perche.)

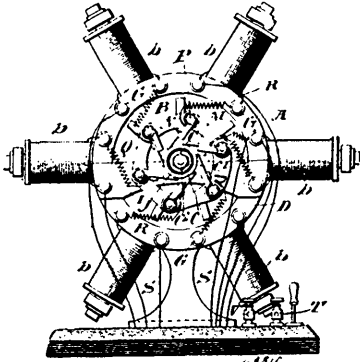


Lawrence Copeland Seelye, of Fort Edward, and George W. Burnham, Luzerne, both of New York, U.S.A., 1st May, 1893; 6 years.

Claim. 1st. A trolley stand and pole, comprising a suitable support, pairs of oppositely arranged toggle arms pivoted together at top and bottom, a spring connection between the toggle arms, and a trolley-wheel carried at the top of the pole, substantially as described. 2nd. A trolley stand and pole comprising a laterally oscillating support, oppositely arranged toggle arms mounted on the support, a trolley-wheel at the upper end of the toggle arms, a spring device to press the toggle arms together, and mechanism for holding the pole in a vertical position, substantially as described. 3rd. The

combination, with the trolley pole, comprising oppositely arranged spring-pressed toggle arms, of the trolley-wheel carried at the upper end of the toggle arms, and a device actuated by the upward extension of the trolley pole to pull the pole over, substantially as described. 4th. The combination, with the trolley pole, comprising the oppositely arranged spring-pressed toggle arms, of the spring secured to opposite toggle arms and to an adjacent support, a device actuated by the swinging of the toggle arms to disengage the springs, and a lock to alternately fasten the springs, substantially as described. 5th. The combination, with the oppositely arranged toggle arms pivoted together at the top and bottom, of the trolley-wheel, the supporting fork of the same having its shank extending downward through the upper pivot of the toggle arms, and the links pivotally connected to the shank and to the toggle arms, substantially as described. 6th. The combination, with the extension trolley pole, of the base supporting it, the springs connected with the opposite sides of the pole and with the base, releasing chains connecting the lower ends of the springs with the trolley pole, and a slide to alternately lock the springs, substantially as described. 7th. The combination, with the base, the oscillating cross-bar thereon, and the trolley pole mounted on the cross-bar and comprising oppositely arranged spring-pressed toggle arms, of the springs connected with the opposite toggle levers and hooked to staples on the base, and the slide mounted on the base and adapted to alternately lock the hooks to the staples, substantially as described. 8th. The combination, with the base and the trolley pole comprising oppositely arranged spring-pressed toggle arms, of the springs secured to opposite toggle arms and hooked to staples on the base, the chains connecting the spring hooks with the toggle arms, and the slide movable on the base and adapted to alternately lock the springs to the staples, substantially as described. 9th. The combination, with the trolley pole, its supporting base, the springs secured to the pole and connected to the base of the slide to lock the springs to the base, of the lever fulcrumed on the base and connected with the slide, and the oppositely extending cords to work the lever, substantially as described.

**No. 48,810. Electric Motor. (Moteur électrique.)**

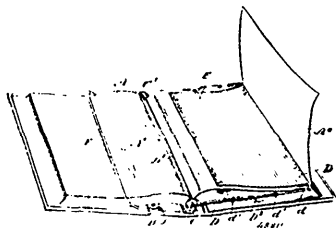


John Samuel Losch, Summit Station, John Hay Phillips, Joseph Winfield Meyer and John Harris Williams, Pottsville, all of Pennsylvania, U.S.A., 1st May, 1895; 6 years.

*Claim.*—1st. In an electric motor, the combination with a series of field magnets, and a series of armatures, of a commutator composed of a cylindrical shell, one end of which is divided into a number of distributing sections equal to the number of armatures, the fractional portion of the circumference of the shell occupied by each of said sections being represented by the product obtained in multiplying the number of field-magnets by the number of armatures. 2nd. In a motor of the kind described, the combination of a non-magnetic casing having a series of openings formed therein through which the poles of a series of magnets mounted thereon project, an armature mounted upon a shaft revolvable within the casing, a commutator provided with a continuous ring through which current is distributed to the coils in series, and brushes bearing upon the distributing sections and connected to the field coils in such manner as to cause a change in location of the effective part of the magnetic field in response to and at a higher speed than the revolution of the armature. 3rd. In a motor of the kind described, the combination of an armature composed of a series of soft iron bars, an annular non-magnetic casing surrounding said armature and provided with a series of openings, field-magnets mounted upon the casing with their poles projecting through the openings into operative relation to the armature, and means whereby the magnetic field may be caused to rotate in the direction of armature travel and at a higher speed than the same, and the point of highest efficiency between the field magnets and armature utilized. 4th. In an electric

motor, the combination of an armature, an annular non-magnetic casing surrounding the same, openings in the casing, magnets carried by the yokes secured to their outer ends and with their inner ends projecting through the openings in the casing, and bolts passed through the yokes and seated in the casing by which the magnets are retained in place, substantially as described. 5th. In an electric motor, the combination, with a commutator, of a brush provided with ribbed or flanged ends, whereby a greater wearing surface is provided, and whereby the brush is more readily retained in position. 6th. In an electric motor, the combination, with a commutator-brush ribbed or flanged at its ends and perforated at its centre, of a holder correspondingly grooved and perforated, a retaining-bolt whereby the brush is retained in position, means for holding the brush in operative relation to the commutator, and a spring whereby the pressure may be determined, substantially as described.

**No. 48,811. Check Book. (Carnet de chèques.)**



The Carter Crane Company, assignee of Edward Carney, both of Toronto, Ontario, Canada, 1st May, 1895; 6 years.

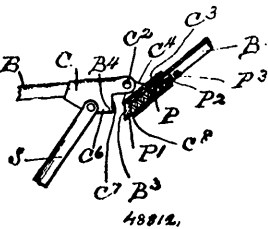
*Claim.*—1st. The combination with a check book or copying book comprised of a number of original leaves and duplicate leaves, of a wire loop, one side of which passes through the centre of the book next the binding and means for securing such side in position and the other side of which rests, close upon the outer edge of the leaves of the book and means for securing the carbon leaf to the outer side of the loop, as and for the purpose specified. 2nd. The combination with a check book comprised of a number of duplicate leaves and fly leaves or originals forming part of the duplicate leaf and folding inwardly thereupon, of a wire loop the inner side of which passes lengthwise through the centre of the leaves of the book next the binding and is suitably hinged at the ends to retain it in such position and the outer side of which rests close upon the outer edges of the leaves, and has spring fingers at the ends between which and this the folded edge of the carbon leaf is held, as and for the purpose specified. 3rd. The combination with a check book comprised of a number of duplicate leaves and fly leaves or originals forming part of the duplicate leaf and folding inwardly thereupon, of a cover provided with a plate extending across the inside of the back of the book, and having upwardly turned hooks, and a wire loop the inner side of which extends the length of the book between the centre of the leaves next the binding and the carbon leaf, and the outer side of which has spring fingers at the ends between which and this side the folded edge of the carbon leaf is held, as and for the purpose specified. 4th. The combination with a check book comprised of a number of duplicate leaves and fly leaves or originals forming part of the duplicate leaves and folding inwardly thereupon, of a wire loop the inner side of which passes lengthwise through the centre of the leaves of the book next the binding, and is suitably hinged at the ends to retain it in such position, and the outer side of which has spring fingers at the ends between which and this side the folded edge of the carbon leaf is held, and the sliding jointed ends arranged, as and for the purpose specified. 5th. The combination with a check book comprised of a number of duplicate leaves and fly leaves or originals forming part of the duplicate leaves and folding inwardly thereupon, of a wire loop the inner side of which passes lengthwise through the centre of the leaves of the book next the binding, and the outer side of which has spring fingers at the ends between which and this side the folded edge of the carbon leaf is held, and the sliding jointed ends each member of which is formed with loops *D*, through which the adjacent member passes, as and for the purpose specified. 6th. The combination with a check book or copying book comprised of duplicate leaves and originals, of a cover and a ball hinged in ears attached to it and designed to straddle the duplicate leaves when turned back, as and for the purpose specified. 7th. The combination with a check book or copying book comprised of duplicate leaves and originals, of a cover and ball *F*, hinged in ears *F*, attached to the cover and having ends *F'*, extending from the pivotal ends of the ball, as and for the purpose specified.

**No. 48,812. Umbrella. (Parapluie.)**

The Grispaud Umbrella Company, Glens Falls, New York, assignee of Clarence C. Frost, Norwich, Connecticut, both in the U.S.A., 1st May, 1895; 6 years.

*Claim.*—1st. In a folding umbrella having two-piece ribs connected

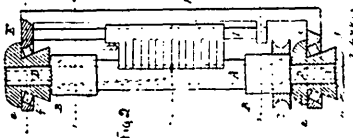
by a folding hinge and severally provided with stretchers, the combination with the outer rib-piece movable longitudinally through its hinge-section, and a spring for actuating the movable rib-piece in one direction, of a fixed catch on the other hinge-section, the catch



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and the inner end of the movable rib-piece having relatively-inclined engaging faces, whereby the rib-piece yieldingly passes the catch and engages therewith to lock the hinge when the hinge-sections are extended, substantially as described. 2nd. In a folding umbrella having two-piece ribs connected by a folding hinge and severally provided with stretchers, the combination with the outer rib-piece movable longitudinally through its hinge-section, a spring for actuating the movable rib-piece in one direction, and a transverse back-stop on such hinge-section, of a transverse back-stop, and a locking catch on the outer hinge-section, substantially as described.

No. 48,813. Speed Indicator. (Indicateur de vitesse.)



James Maylor jr. and George Thomas McLanolin, both of Boston, Massachusetts, U.S.A., 1st May, 1895; 6 years.

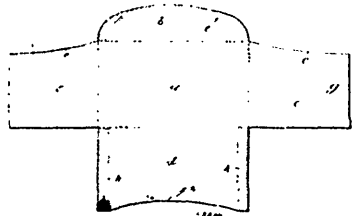
Claim.—1st. A sight speed indicator consisting of a vertically revolving transparent tube, a contained fluid, gudgeons B, B, having the said extending journals D, D, and the grooved pulley thereon in combination with the open frame F, bearing boxes E, E, and rubber rings f, f, as shown and described. 2nd. The combination with a vertical revolving transparent tube, a contained fluid, gudgeons having extending journals and a grooved pulley, of the yielding bearing boxes and open frame as shown and described. 3rd. In a sight speed indicator, the revolving parts consisting of the glass tube, the contained fluid, gudgeons having the extending journals and grooved pulley, all secured and moving together integrally and suitably mounted in the bearing boxes and frame so as to be well exposed, in combination with the rod I and the vertically and horizontally adjustable index plate, as shown and described. 4th. The bearing boxes E, E, having the shoulders e, e, and conical shaped extension, the frame F, having the opening also conical, in combination with an intervening rubber or yielding ring as described, and for the purpose set forth. 5th. In a speed indicator, the combination with a supported and revolving glass tube containing an indicating fluid; of an adjustable index plate supported on the rod I, said plate having a central projection or equivalent to serve a normal mark, and graduation marks above and below it as herein shown and described. 6th. In a speed indicator the combination with an index plate mounted upon a vertical rod, said plate tapering to an edge so that the face of same may be set at a tangent to the glass tube, and means to secure the entire at proper elevation, of the supported and integral revolving parts as herein set forth.

No. 48,814. Envelope. (Enveloppe.)

Elder Sherrill Vance, John J. McClellan, Eugene W. McClellan, William L. McClellan, all of Donoho, and William L. Kemp, jr., Kenipville, all of Tennessee, U.S.A., 1st May, 1895; 6 years.

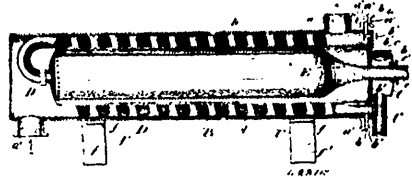
Claim.—The herein described mail and express envelope having a blank comprising a rectangular body portion a, lateral integral flaps c and c, the flap c being of less length than the flap c, and said flaps c and c being gummed respectively on their inner and outer surfaces as shown at g and f, whereby when the lateral flaps are folded parallel with the inner surfaces of the main or body portion they may be secured together by means of said gummed surfaces, an upper semi-elliptical flap b adapted to fold over the upper edges of the lateral flaps and provided with a gummed inner surface f to adhere thereto, and a lower or closing flap d of a width approximately equal to the main or body portion, and cut away at its free edge to expose a portion of the surface of the flap b, said

flap d being gummed at its lateral edges as at h, h', the lateral flaps being gummed upon their outer surfaces adjacent to their lower surface as at f', g', and the flap b being gummed upon its outer



surface as shown at k, where-by the lower or closing flap d is secured by adhesive material at its inner, outer and lateral edges, substantially as specified.

No. 48,815. Wort Cooler. (Appareil à refroidir le moût.)



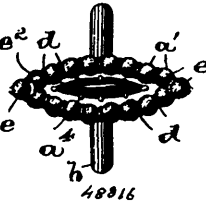
Henry Emil Deckelach, Cincinnati, Ohio, U.S.A., 2nd May, 1895; 6 years.

Claim.—1st. The combination, in a wort cooler, of the outer and inner cylinders separated from each other to form jackets for the passage of the wort and the cooling liquid, a spiral coil within the wort jacket for the cooling liquid, said coil and the walls of the jacket being in close proximity to retard the movement of the wort through the jacket and keep it in contact with the cooling surfaces, the central cylinder for the cooling liquid, communicating with the coil, induction and eduction pipes communicating with the wort jacket, and similar pipes to receive the cooling liquid into the device and discharge it therefrom, substantially as shown and described. 2nd. The combination of the outer cylinder, a closed jacket for the passage of wort, a central cylinder separated from the cylinder forming the inner wall of the wort jacket, having a reduced neck passed to the outside of the cooler, and separated from the surrounding cylinder, but communicating with it through perforations in the inner end of said central cylinder, the inner and intermediate cylinders together forming a jacket for the cooling liquid, the cooling coil connected to the end of the intermediate cylinder and coiled around in the wort jacket, said coils in proximity to the walls of the jacket to compel the wort to travel in a spiral path, an induction pipe at one end of the said wort jacket and an eduction pipe at the opposite end, to connect with the pipe leading to the fermenting tuns, a pipe to introduce cooling liquid to the inner cylinder, and a discharge pipe leading outside of the cooler for said cooling liquid after it has passed through the inner cylinder and coil, substantially as shown and described. 3rd. In a wort cooler, the combination of the outer case or cylinder A, having induction branch a, and eduction branch a', the flanged ring a'', at one end of said cylinder, the inner cylinder B, having flanged ring b, for coupling the inner and outer cylinders, and closing the jacketed space between them, the spiral coil C, connected to the inner end of the cylinder B, coiled around it towards the opposite end, and having a branch passing to the outside of the cooler, the inner cylinder E, having a reduced neck passing through the end of the cooler to receive the pipe conveying the cooling liquids, said cylinder E, being open at the inner end and bearing against the end of the intermediate cylinder B, and having its end perforated to pass portions of the cooling liquid from the cylinder E, around the space in the jacket between it and the cylinder B, the head b', closing the end of cylinder B, and perforated to pass the cooling liquid from the jacketed space between the cylinders B, and B, substantially as shown and described. 4th. In a wort cooler, the combination of the outer cylinder, having induction pipe at one end and eduction pipe at the other, flanged ring around the open end of said cylinder, an inner cylinder having flanged ring closing the jacket between the said cylinder and the outer cylinder, bolts and nuts for detachably securing the two cylinders together, perforated heads secured to the front end of said intermediate cylinder, a central cylinder having reduced neck passing centrally through said head, having its inner end open to bear against the concavo-convex end of the surrounding cylinder and perforations communicating with the



jacket between the inner and intermediate cylinders, the cap C, surrounding the reduced neck of the inner cylinder, the cooling coil D, connected to the inner end of the intermediate cylinder and coiled around said cylinder at the forward end, forming a spiral path in the jacket between the intermediate and outer cylinders, the discharge pipe C', for the cooling liquid, communicating with the space between the inner and intermediate cylinders, and the branch in the coil passing through the head of the inner cylinder and communicating with said discharge pipe, whereby the wort is compelled to travel in a spiral path in the jacketed space between the outer and intermediate cylinders, and the cooling liquid passed to the inner cylinder and from there partly through the coil and partly in the space or jacket between the inner and central cylinders, substantially as shown and described. 5th. The combination of the outer cylindrical case, a central cylinder, having its open end protruding through the end of said case, double cylinders intermediate the central cylinder and outer case, said intermediate cylinders being closed at their ends to form a jacket for the cooling liquid, and said cylinders forming communicating wort jackets between the outer case and intermediate cylinder, and the intermediate cylinder and central cylinder, the wort supply pipe connected to the inner jacket, the wort discharge pipe leading from the outer jacket, cooling coils in both the inner and outer wort jackets, a supply pipe for the outer coil, the opposite end of said coil connected to discharge into the jacket between the intermediate cylinders, the discharge pipe leading from said jacket at its forward end, said inner coil connected to the inner end of the central cylinder to receive the cooling liquid from it, and the opposite end of said inner coil passing to the outside of the cooler, and a supply pipe for the cooling liquid connected to the front end of the central cylinder, substantially as shown and described. 6th. The combination of the outer cylindrical case, the central cylinder having its open end protruding through the end of said case, the two cylinders closed at their ends intermediate the central cylinder and outer case, and detachably connected to the outer case and to each other at their inner ends by ringed flanges forming communication between the spaces or jackets between the inner cylinder and intermediate cylinder, and between said intermediate cylinder and the outer case, cooling coils in said jackets, the inner coil communicating with the jacket between the intermediate cylinders, the wort supply and discharge pipes communicating with said jackets, and the supply and discharge pipes for the cooling liquids, substantially as shown and described.

**No. 48,816. Jewelry. (Bijoux.)**



Emil Schill, Newark, New Jersey, U.S.A., 2nd May, 1895; 6 years.

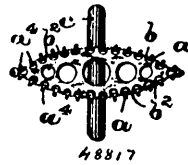
*Claim.*—1st. The combination, with the bezel of a piece of jewelry, of rings on said bezel, between which the precious stones or pearls are forced and held, substantially as and for the purposes set forth. 2nd. The combination, with a bezel of a piece of jewelry, and cup-shaped depressions of said bezel, of rings on said bezel, one ring between two consecutive depressions, and between which rings the precious stones or pearls are forced and held, substantially as and for the purposes set forth. 3rd. The herein described setting for precious stones or pearls, comprising therein, a bezel *a* having depressions *a'*, and rings *d* between two consecutively placed depressions, between which rings the precious stones or pearls are forced and held, substantially as and for the purposes set forth. 4th. The method herein described of producing a setting for precious stones or pearls, consisting in first, forming a bezel, and then soldering rings on said bezel, between which the precious stones or pearls are forced, substantially as and for the purposes set forth. 5th. The method herein described of producing a setting for precious stones or pearls, consisting in first forming a bezel *a*, producing cup-shaped depressions *a'* therein, and soldering rings *d* on said bezel between said depressions, substantially as and for the purposes set forth.

**No. 48,817. Jewelry. (Bijoux.)**

Emil Schill, Newark, New Jersey, U.S.A., 2nd May, 1895; 6 years.

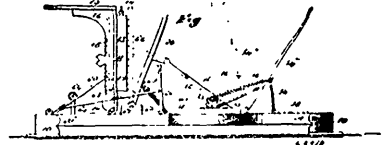
*Claim.*—1st. The method herein before described of producing jewellery, consisting in first, forming a side piece, as *a*, with a design in outline thereon, secondly, forming a centre piece, as *b*, thirdly, soldering said centre piece to the side piece, so that the upper surface of the centre piece and the upper edge of the side piece are flush; and finally, forming the cramps on said side piece and said centre piece, substantially as and for the purposes set forth. 2nd. The

method hereinbefore described of producing jewellery consisting in first, forming side pieces, as *a*, with a design in outline thereon; secondly, shaping said pieces crescent-shape, thirdly, soldering two of said side pieces together at their ends; fourthly, forming a centre



piece, as *b*; fifthly, placing said centre piece between said soldered side pieces and soldering said centre piece to said side pieces, so that the upper surface of the centre piece and the upper edge of the side pieces are flush; and finally, forming cramps on said side pieces and said centre piece, substantially as and for the purposes set forth. 3rd. The method herein before described of producing jewellery, consisting in first, forming a side piece, as *a*, with a design in outline thereon, secondly, forming a centre piece as *b*, and providing said centre piece with holds *b'*, near the edge; thirdly, soldering said centre piece to the side piece, so that the upper surface of the centre piece and the upper edge of the side piece are flush; and finally, filing or cutting away the edges of said centre piece and side piece into the holes *b'*, to form holding cramps for the jewels of the piece of jewellery, all substantially as and for the purposes set forth.

**No. 48,818. Printing-Press. (Presse à imprimer.)**

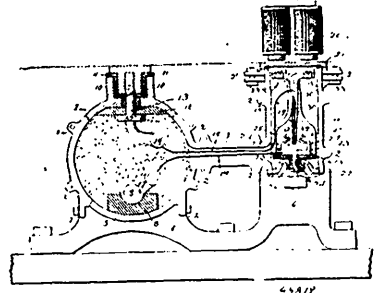


Daniel Maurer, Middle Village, New York, U.S.A., 2nd May, 1895; 6 years.

*Claim.*—In a printing-press, the combination, with a type-bed, of a platen pivoted to move to and from the bed, springs exerting pressure upon the platen in direction of the bed, a sliding block, a pivotal connection between the block and the platen, a hand lever, a connection between the hand lever and the block, and springs carried by the block, and attached to said lever, exerting tension thereon in direction of the platen, as and for the purpose set forth.

**No. 48,819. Closed Conduit Electric Railway.**

(Conduite de chemin de fer électrique.)

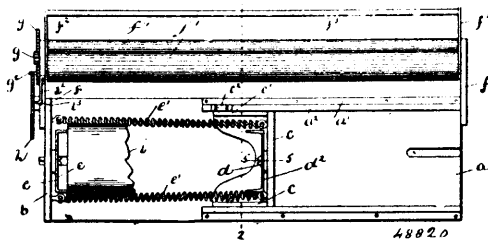


James Francis McLaughlin, Philadelphia, Pennsylvania, U.S.A., 2nd May, 1895; 6 years.

*Claim.*—1st. An electric railway provided with a closed conduit, a main or supply conductor housed therein, a sectional working conductor on the conduit, switch levers, with switches therein, at the sides of the conduit, necks connecting the switch boxes with the conduit, and branch conductors passing through the necks and connecting the main conductor and sections of the working conductor to the switches, substantially as described. 2nd. An electric railway provided with a closed conduit composed of sections secured together at the ends and having switch boxes at the sides connected thereto by laterally extending necks, substantially as and for the purposes set forth.

described. 3rd. An electric railway provided with a conduit composed of sections having switch boxes connected thereto by laterally extending necks, in combination with supports having extensions forming the bottoms of the switch boxes, substantially as described. 4th. In an electric railway, the combination with a closed conduit provided with main and supply conductors, of switch boxes arranged alternately on opposite sides of the conduit and provided with switching mechanism for coupling the main conductor with sections of the working conductor, and two series of electro-magnets, on opposite sides of a motor car, in line with the switch boxes, for operating the switches therein by magnetic attraction, substantially as described.

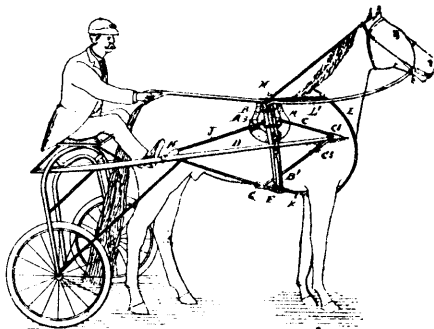
**No. 48,820. Device for Displaying and Measuring Goods.** (*Appareil pour étaler et mesurer les marchandises.*)



Henry Minister, Zaleski, Ohio, U.S.A., 2nd May, 1895; 6 years.

*Claim.*—1st. In a goods displaying and measuring device the combination with the base and framework, an angular guide piece on each side of said base and a fixed standard rising from the base, of a travelling standard also rising therefrom, bearing wheels journaled on said travelling standard and running within said guide strips, claws or clamps journaled in said fixed and travelling standards and springs connecting said standards, substantially as and for the purpose specified. 2nd. In a goods displaying and measuring device, the combination with a base and framework, of a fixed and a movable standard rising from said base, an adjustable connection between said standards, clamps or claws journaled on the inner faces of the standards, a roller journaled in said framework, a frame consisting of the arms  $f^2$ , and connecting rod  $f^3$ , a pressure roller  $f^4$  journaled therein, a jointed connection between said roller carrying frame, and the main frame of the device by means of which said pressure roller is normally in contact with said roller  $f^1$ , a pinion on the outer projecting end of the roller  $f^1$ , a gear-wheel gearing with said pinion, a pin projecting from said gear-wheel, and a registering wheel having numbered teeth with which said pin is adapted to engage at each revolution of the gear-wheel, substantially as specified.

**No. 48,821. Harness.** (*Harnais.*)

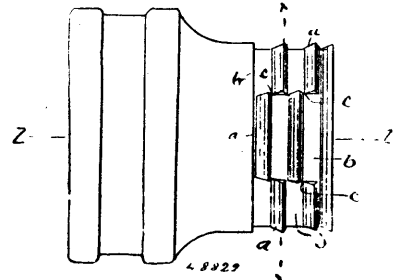


Mortimer L. Knowles, Detroit, Michigan, U.S.A., 2nd May, 1895; 6 years.

*Claim.*—1st. In a harness, the combination of a saddle pad A, a back strap B, and the traces each engaged directly to the back pad A independently of said back straps, whereby the strain of the traces will be communicated directly to said back saddle pad, substantially as set forth. 2nd. In a harness, the combination of the back saddle pad A, the back strap B, the girth B<sup>1</sup>, the traces F engaged directly to said back saddle pad, and spring pulleys over which said traces are led intermediate their ends, substantially as set forth. 3rd. In a harness, the combination of a back saddle pad A, formed with a soft pad A<sup>1</sup>, and leather covering A<sup>2</sup>, draught straps A<sup>3</sup>, A<sup>3</sup> secured to the covering A<sup>2</sup> toward the extremities thereof, holdback straps C, C<sup>1</sup> secured to the forward ends of said draught straps, traces J, J secured to the rear ends of said draught straps, a back pad B, additional straps permanently secured to said covering engaging said back pad upon the saddle pad, and a girth B<sup>1</sup>, the hold-back straps and traces being secured directly to the

back saddle pad A independent of the back pad B, substantially as and in the manner set forth. 4th. In a harness, the combination of the back saddle pad A, the back strap B, the girth B<sup>1</sup>, the hold-back straps engaged with said back saddle pad independently of said back strap, and the safety girth, said hold-back straps provided with sheathes at their forward ends, substantially as set forth. 5th. In a harness, the combination of the back pad A, the traces J, spring pulleys H, and the hip pad N, substantially as set forth. 6th. In a harness, the combination of the back pad A, the traces J, spring pulleys H, and the hip pad N, said hip pad provided with a spring N<sup>2</sup> to engage the ends of the traces, substantially as set forth.

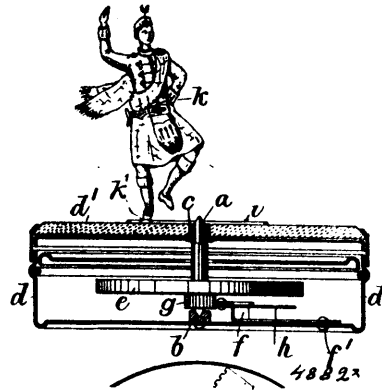
**No. 48,822. Pipe.** (*Tuyau.*)



Hubert Root Ives, Montreal, Quebec, Canada, 2nd May, 1895; 6 years.

*Claim.*—1st. A pipe formed with alternate sections of peripheral grooves and ridges in or upon its surface, for the purpose set forth. 2nd. A pipe formed with alternate discontinuous peripheral grooves and ridges in or upon its surface, for the purpose set forth. 3rd. A pipe having in or upon its surfaces peripheral grooves and ridges, and communicating channels between the grooves through the ridges, for the purpose set forth. 4th. A pipe formed with sections or peripheral ridges and dividing spaces between each section arranged in lines encircling the pipe and the dividing spaces of one line being opposite or adjacent to the ridge section of another line, for the purpose set forth. 5th. A pipe formed with sections of peripheral ridges of triangular cross-section and dividing spaces between each section arranged in lines encircling the pipe and the dividing spaces of one line being opposite or adjacent to the ridge section of another line, for the purpose set forth.

**No. 48,823. Mechanical Toy.** (*Jouet mécanique.*)



Abraham Martin, Richmond, England, 2nd May, 1895; 6 years.

*Claim.*—1st. In a mechanical toy, the combination, with a magnetic or magnetized spindle mounted to rotate in bearings of an armature or driven part adapted to be held by magnetic attraction in driving contact with the spindle so as to receive motion therefrom, as specified. 2nd. In a mechanical toy, the combination, with a magnetic or magnetized spindle mounted to rotate in bearings, of an armature or driven part adapted to be held by magnetic attraction in driving contact with the spindle so as to receive motion therefrom, a support for the armature or driven part through which the spindle projects, and a figure or object carried by the armature or driven part to which eccentric movements, depending on the form of the armature, are imparted by the revolution of the spindle, as specified. 3rd. In a mechanical toy, a magnetic or magnetized spindle mounted vertically to revolve in bearings and provided with a fly-wheel, in combination with a quadrant rack and pinion gear for imparting motion to the spindle and fly wheel, as and for the purpose specified. 4th. In a mechanical toy, the combination of one or more vertical magnetic spindles adapted to actuate by driving contact armatures carrying figures or objects to which eccentric motions are to be imparted, as described, with a spring motor barrel, as specified.

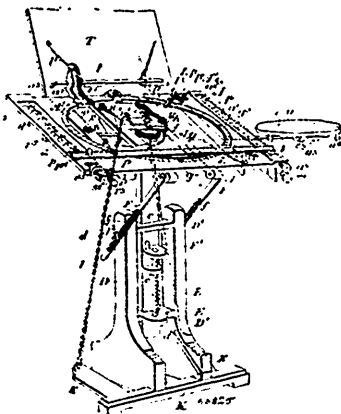
**No. 48,824. Boot and Shoe Lasting Device.**

(Forme de chaussure.)



Guillaume Boivin, Montreal, Quebec, Canada, 6 mai, 1885; 6 ans.

*Resume.* Un procede pour lever solidement ensemble les deux parties C et D d'une forme a chaussures, consistant a adapter a la partie inferieure D de la forme un ressort B dont la partie b pressant sur le bloc C le maintient en position, puis a creuser dans le bloc C une cavite A permettant, au dit bloc de glisser sur la partie inferieure D sans toucher au ressort B, le tout tel que decrit et pour les fins indiquées.

**No. 48,825. Drawing Table. (Planche a dessin.)**

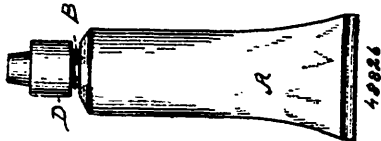
Samuel John Laughlin, and James Hough, both of Guelph, Ontario, Canada, 2nd May, 1885; 6 years.

*Claim.*—1st. In a drawing table, the combination with the table A, having a circular opening, of a removable circular drawing board, a square socket in the centre of the bottom thereof, a spindle with a square head fitting into the socket, means for rotating the spindle, and cross-bars secured to the underside of the table and extending beneath the opening, and friction rollers journaled in the cross-bars and forming the supports for the board, substantially as described. 2nd. The combination with a circular drawing board G, the arc-shaped clasps O, pivoted at  $o_1$  on the edge of the board and designed to fit between the bent retaining pin  $o_2$ , and the edge of the board over the turned down corner of the paper, as and for the purpose specified. 3rd. The combination with a drawing table having a circular opening and a circular drawing board within such opening, of a spindle  $h$ , journaled in the bars H, H, extending between the central cross-bars  $A^1$ ,  $A^1$ , and having a square upper end extending into corresponding hole in the plate at the bottom of the board, a pulley I, on the spindle  $h$ , guiding pulleys  $i_1$ ,  $i_2$  on the spindle  $P$ , extending between the cross-bars, a chain secured to the pulley I, and extending over the guiding pulleys  $i_1$ ,  $i_2$ , the lower end of the chain being connected to the forward end of the pedals  $k$ , and the cross-bar K, secured to the lower portion of the standard and extending out each way and having the pedals hinged to it, as and for the purpose specified. 4th. The combination with a table provided with a circular opening, and a circular board supported within the opening with its surface above the level of the table and provided with a catch  $g^2$ , in its edge and means for rotating the table, of stops adjustably held at each side and within the sweep of the catch, the stops being located at approximately ninety degrees apart so as to permit of a ninety degrees swing to the board, as and for the purpose specified. 5th. The combination with a table provided with a circular opening, and a circular board supported within the opening with its surface above the level of the table and provided with a catch  $g^2$ , in its edge, and means for rotating the table, of the

pivoted stops  $L$ , adjustably held at each side and within the sweep of the catch, the stops being located at approximately ninety degrees apart and screw pins  $h^1$ , extending through blocks  $L^1$ , provided to adjust the stops to a nicety, as and for the purpose specified. 6th. The combination with a drawing table having a circular opening, a circular drawing board having the surface extending above the table, and a pivoted spring clamp secured at the rear of the table and having its free end extending over the board, a screw pin extending from the top of the table through the clamp, and a pressure knob secured upon the screw pin above the clamp, as and for the purpose specified. 7th. The combination with the table A, provided with cross-bars and pivotally supported upon the spindle B, having bearings beneath the cross-bar upon the upper enlarged end of the vertical single standard C, the standards D D, having cross-bars  $D^1$ , through which the standard C, extends, the bracket  $o^1$ , forming part of the cross-bar  $D^1$ , the bracket  $c$ , forming part of the standard C, the screw spindle secured in the bracket  $D^1$ , and extending through the bracket  $c$ , and provided with a hand-wheel, as and for the purpose specified. 8th. The combination with the table A, provided with cross-bars and pivotally supported upon the spindle B, having bearings beneath the cross-bar upon the upper enlarged end of the vertical single standard C, the double standard B, supporting the single standard in the cross-bars  $D^1$ , extending between them, the fixed stay  $F$ , pivotally connected to the cross-bars  $A^1$ , and secured to the standards D, D, by the thumb screw  $d$ ,  $d$ , extending through the slots, as and for the purpose specified. 9th. The combination, with the table A, having the raised ends  $A^2$  and  $A^2$ , and a circular opening  $a$ , and circular board G, rotatably supported within the opening and having its surface flush with the surface of its raised ends, of the rule  $P$ , extending across the board and raised ends and connected at both ends to cords by depending blocks and means whereby the cords are given a uniformity of movement so as to keep the rule when being moved parallel to the rear and front of the table, and for the purpose specified. 10th. The combination, with the table A, having the raised ends  $A^2$  and  $A^2$ , and a circular opening  $a$ , and circular board G, rotatably supported within the openings and having its surface flush with the surface of the raised ends, of the rule  $P$ , extending across the board and raised ends and connected at both ends to cords by depending blocks, the cords being endless and extending around front and rear pulleys  $r$  and  $r^1$ , and wound around central pulleys  $r^2$ , which are secured at each end to the common spindle B, as and for the purpose specified. 11th. The combination, with the table A, with raised ends  $A^2$  and  $A^2$ , and having a circular opening provided with a circular board rotatably supported and initially secured therein and having the surface flush with the raised ends, of the rule  $P$ , and the scale  $A^3$ , held securely within the longitudinal recess  $a^2$ , in any definite position by the adjusting screw  $a^4$ , as and for the purpose specified. 12th. The combination, with the table A, with raised ends  $A^2$  and  $A^2$ , and having a circular opening provided with a circular board rotatably supported and secured therein, and having the surface flush with the raised ends, of the rule  $P$ , rotatable bar journaled in the recess  $a^2$ , and provided with longitudinal ratchet shaped notched strips and grooves longitudinally arranged, a catch tooth  $P^1$ , depending from the rule and designed to engage with a notched strip of the bar when underneath the tooth, as and for the purpose specified. 13th. The combination, with the table A, with raised ends  $A^2$  and  $A^2$ , and having a circular opening provided with a circular board rotatably supported and secured therein, and having the surface flush with the raised ends, of the rule  $P$ , rotatable bar journaled in the recess  $a^2$ , and provided with longitudinal ratchet-shaped notched strips and grooves longitudinally arranged, a catch tooth  $p$ , depending from the rule, the scale marked collar  $s^1$ , on the supporting spindle  $s$ , the pointer  $S^1$ , knob  $s^2$ , toothed wheel  $s^3$ , and dog  $s^4$ , all arranged as and for the purpose specified. 14th. In a drawing table, in combination a circular drawing board rotatably supported having a pointer on the edge of the board and a protractor arranged around half of the circumferential edge of the board, suitably divided and indexed from nought to ninety from the centre outwardly to each end, a spring clamp for holding the board in any desired position, and a rule arranged to have a parallel movement to a straight line between the ends of the protractor, as and for the purpose specified.

**No. 48,826. Collapsible Tube for Mucilage.**

(Tube pour le mucilage.)

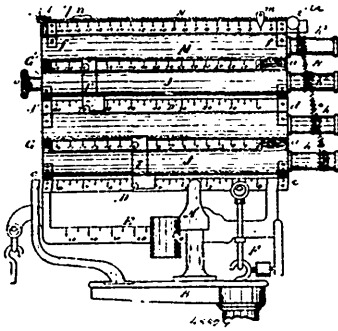


Joseph Ainsworth Symond, Newton, Massachusetts, U.S.A., 2nd May, 1885; 6 years.

*Claim.* 1st. The collapsible case or tube A, having the head B, provided with a neck  $b$ , a recess  $b^2$  and a brush or applying device

having a petticoat or section *c'* which enters the recess *b'* and is held therein by shutting or closing one wall of the recess toward the other, to thereby clamp the said brush section in said recess, as and for the purposes described. 2nd. The combination in a collapsible tube or package of the case or shell having the head *B* provided with the neck *b* with the brush *C* having the perforated diaphragm *c'* and the brush section *c''* united by the section *c'* to the neck, substantially as described. 3rd. The combination of a collapsible case or shell *A*, of the character specified having the head *B* provided with a neck having the screw thread *d* and a brush or applying device secured to the neck with a cap *D* having a conical recess to form and hold the brush in a conical shape when applied to the neck, as and for the purposes described.

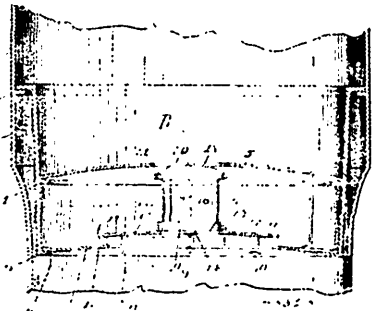
**No. 48,927. Computing Scale. (Balance.)**



Drury J. Smith, junr., Dayton, Ohio, U.S.A., 2nd May, 1895; 6 years.

*Claim.*—1st. In a computing scale, the combination with the beams of rollers mounted adjacent to said beams, a flexible sheet adapted to be wound on said rollers, said sheet bearing numbers indicating the values of specific quantities of goods, and means for rotating said rollers, substantially as described. 2nd. In a computing scale, the combination with the beams of a casing provided with longitudinal slots in both sides, mounted above said beams, rollers included in said casing, a flexible sheet wound upon said rollers, and bearing corresponding numbers on both sides which are visible through said longitudinal slots, gear-wheels keyed to the shafts of said rollers, and means interposed for rotating said gear wheels, substantially as described. 3rd. In a computing scale, the combination with weight beams, of a flexible sheet upon both sides of which the values of quantities of goods sold appear, rollers upon which said sheet is wound, a gravity chain on said rollers to maintain an unchangeable gravity of the scale, as said sheet is shifted from one roller to the other, and means for unwinding said sheet, substantially as described. 4th. In a price and weighing scale, the combination with the weight beams, of a flexible sheet upon both sides of which, money values of specific quantities of goods sold appear, rollers upon which said sheet is wound, means on said rollers to maintain the gravity of the scale as the sheet is wound from one roller to the other, and a combined resilient and flexible chain for revolving said rollers, substantially as described. 5th. In a price and weighing scale, the combination with weight beams, of a flexible sheet mounted upon rollers above said scale, said sheet having numerals indicating the cost of specific quantities of goods, a price per pound-bar adjacent to said sheet, pulleys mounted adjacent to said price per pound-bar, and on a horizontal plane with said bar, a flexible and resilient chain interposed between said pulleys, and the rollers to which said sheet is attached, a sliding poise, and a counter-balancing weight attached to said chain, substantially as described. 6th. In a price and weighing scale, the combination with a weight beam, of cylinders provided with sight openings, mounted above said beam, a supplemental weight beam interposed between said cylinders, rollers included in said cylinders, a flexible sheet attached to said rollers, a price per pound-bar mounted above said cylinders, a sliding poise movable along said bar, a flexible and resilient chain interposed between said rollers and to which said sliding poise is attached, a gravity device on said rollers, and a counter-weight attached to said flexible and resilient chain, substantially as described. 7th. The combination, with the scale beams, of a casing provided with longitudinal slots, a flexible sheet within said casing bearing numbers, rollers upon which said sheet is wound, and means for turning said rollers, substantially as described. 8th. The combination, with the scale beams, of a flexible sheet upon which are indicated the weights or values of specific quantities of goods, rollers upon which said sheet is wound, a poise adapted to point to the numbers on said sheet, and to those on said scale beams, and means for turning said rollers, substantially as described.

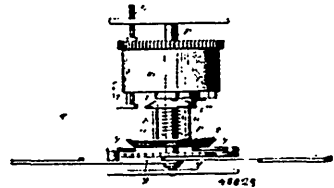
**No. 48,928. Stove Grate. (Grille pour poeles)**



George Lyman Farwell, St. Paul, Minnesota, U.S.A., 2nd May, 1895; 6 years.

*Claim.*—1st. In a stove, the combination with the fire-box, of the main fuel supporting grate arranged beneath the same, and the centrally arranged air conduit for admitting the air from the ash pit through the secondary grate and distributing the same laterally between said grates. 2nd. In a stove, the combination with the fire-box, of the fuel supporting grate, the secondary grate arranged underneath the same, the stationary dome or hood supported upon the secondary grate and projecting slightly into but not filling an opening in the fuel supporting grate, said dome having a bottom air inlet and lateral air outlets. 3rd. In a stove, the combination with the fire-box, of the main grate, the secondary grate arranged underneath the same with intermediate space, the relative large registering openings in both of said grates, the imperforate dome or hood entering but not filling the opening in the main grate, and the perforate support for said dome or hood. 4th. In a stove, the combination with the main and secondary grates, of projections rigidly fixed to one grate and loosely engaging the other, whereby the movement of one grate beyond fixed limits imparts similar movement to the other grate. 5th. In a fire-box, the combination with the upper and lower grates having intermediate combustion space, of the lugs or projections rigidly secured to one, and entering slotted openings in the other, whereby the movement of one grate beyond certain limits imparts a like movement to the other grate.

**No. 48,929. Winding Mechanism. (Machine à molettes.)**



Friedrich Adolf Richter, Rudolstadt, Germany, 2nd May, 1895; 6 years.

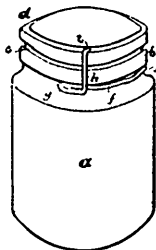
*Claim.*—1st. In a winding mechanism, the combination of a spring-barrel, pawl and ratchet mechanism for winding said spring-barrel, a stud carried by the spring barrel, a releasing device consisting of a pair of connected beveled discs actuated by the stud and operating when displaced to lift the pawls from the ratchet to prevent over-winding of the spring barrel, substantially as described. 2nd. In a winding mechanism, the combination of a spring-barrel, pawl and ratchet mechanism for winding said spring barrel, a wheel *r'* on the arbor of said spring-barrel engaging a wheel *r* carrying a stud *s*, a releasing device actuated by the stud and when actuated to disengage the pawl mechanism from the ratchet to prevent over-winding of the spring-barrel, substantially as described. 3rd. In a winding mechanism, the combination of a winding drum *m*, an arbor *p* thereon, having a ratchet *q* mounted thereon, pawls *r*, engaging said ratchet, a spring pressed releasing device consisting of connected beveled discs *s*, a spring acting thereon, and a stud *s'* on the winding drum for displacing the discs against the pressure of the spring, whereby the releasing device is moved to disengage the pawls *r* from the ratchet *q* to prevent overwinding of the spring-barrel, substantially as described.

**No. 48,930. Jar Fastener. (Fermeture de jarre.)**

Robert I. Patterson, Muncie, Indiana, U.S.A., 3rd May, 1895; 6 years.

*Claim.*—1st. A fastening for jars and the like formed of a single

piece of wire, and comprising a loop adapted to be sprung about the neck of the jar or other article, and having its ends formed with return bends, upwardly extending arms and lugs for engaging the cover, and an offset in the loop operating in the manner and for the



purposes set forth. 2nd. A fastening for jars and the like made of a single piece of wire bent to form a loop adapted to be sprung about the neck of the jar or other article, and having its bend rearwardly, and then upwardly to form arms having lugs for engaging the cover, and an offset in said loop, substantially as and for the purposes set forth.

**No. 48,831. Chicken Coop. (Cage à volailles.)**



Thomas Marr, Buena Vista, Virginia, U.S.A., 3rd May, 1885; 6 years.

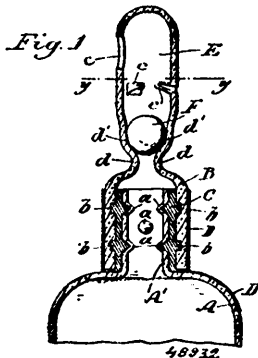
*Claim*—1st. A coop, oval in cross section, made of slats secured together by wires, having end pieces folding inwards, and having hinges on opposite sides between its upper and lower sections. 2nd. The knock-down coop herein described, comprising the slatted upper and lower sections, the upper section being hinged to the lower section at opposite sides of the coop between the top and bottom thereof, in combination with end pieces hinged to the lower section of the coop, and provided with catches adapted to engage with cross wires at the edge of the top of the coop. 3rd. The combination, substantially as hereinbefore set forth, with the upper and lower sections of the coop and the hinged side pieces, of wire hinges for connecting the upper section to the lower section, and braces of crossed wires above the central hinges. 4th. The combination, substantially as hereinbefore set forth, with the upper and lower sections of the coop, of the hinged end pieces, each provided with a catch consisting of a wire hinged at its central portion and provided with upwardly extending arms working through guides and provided with hooks adapted to engage with the wires employed to secure together the slats of the upper section at their ends. 5th. The combination, substantially as hereinbefore set forth, of the upper and lower sections of the coop, the hinged end pieces and the turn-buckles on the end pieces adapted to engage with slats in the upper section of the coop when it is folded. 6th. A coop provided with a door consisting of a looped wire hinged at one end of the opening to one of the slats of the coops and having inwardly projecting arms or fingers at its opposite ends, extending over one of the slats of the coop and adapted to be spread apart, and a sliding loop for locking the arms and preventing their spreading when the door is closed. 8th. The combination, substantially as hereinbefore set forth, of the upper and lower sections, hinged side pieces and hinges for securing the upper section to the lower section, consisting of wires secured to the upper section, bent into a triangular form, and looped at the apex of the angle, wires secured to the lower section, bent into triangular form and interlocked with the wires in the upper section, one limb of the triangular wire in the bottom member of the hinge being longer than the other, for the purpose specified.

**No. 48,832. Non-illable Bottle. (Bouteille à bouchon fixe.)**

John Henry Reelard and John Crombie, both of New York, State of New York, U.S.A., 3rd May, 1885; 6 years.

*Claim*. 1st. A non-illable bottle having indentations in its neck, an auxiliary neck surrounding the same and provided with interior grooves, a plaster of paris filling inserted between said bottle neck

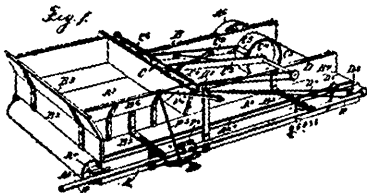
and auxiliary neck, and entering the said indentations and grooves to secure the necks together, and a cylindrical head projecting upwardly from said neck and having a valve therein, substantially as shown and described. 2nd. A non-illable bottle having a plurality of indentations in its neck, an auxiliary neck surrounding the same and having interior grooves therein, a plaster of paris filling



inserted between said bottle neck and auxiliary neck and entering the indentations and grooves therein to secure the same together, an upwardly projecting cylindrical head formed integrally with said auxiliary neck, having a valve seat formed at its junction with said neck, and integral lugs projecting inwardly and substantially horizontally therefrom near the centre thereof, said head having a stopper aperture or mouth in the side thereof, and a valve inserted in said neck, normally resting upon the seat and freely movable to abut against the lugs or projections, substantially as described. 3rd. A non-illable bottle having an auxiliary neck thereon which is closed at the top, and provided with an aperture in the side thereof, a stopper extending transversely through said aperture to bear against the opposite side of the neck, having a plate secured upon the outside thereof to withdraw the same, and a valve inserted in said neck, substantially as shown and described. 4th. A non-illable bottle having an auxiliary neck secured thereto, comprising a main portion, and an integral cylindrical head projecting inwardly at its junction with the main portion to form a valve seat, and provided near its centre with inwardly projecting lugs, said head being closed at the top, and provided with an aperture in its side, a stopper extending transversely through said aperture and bearing against the opposite side of the neck, a segmental plate secured to the outside of said stopper by a rod extending there-through, and formed of spring metal, having the ends thereof extending around said head to clasp the same and secure said stopper, and a valve inserted in said head and freely movable between the seat and the projections thereof, substantially as shown and described. 5th. A non-illable bottle having a plurality of indentations in the exterior of its neck, an auxiliary neck surrounding the same and provided with interior annular grooves, a plaster of paris filling inserted between said bottle neck and auxiliary neck, and entering the indentation and grooves therein to secure the same together, a sheathing surrounding and secured to the exterior of said auxiliary neck to protect the junction thereof, an upwardly projecting cylindrical head formed integrally with said neck, and having a valve seat at its junction therewith, said head being closed at the top, and having an aperture in the side thereof, a stopper inserted transversely through said aperture and secured to the head, a valve sliding in said head, and means for limiting the movement of said valve, substantially as shown and described. 6th. A non-illable bottle comprising a main vessel having a neck in which are formed a plurality of indentations, an auxiliary neck surrounding the same, and having interior annular grooves therein in alignment with said indentations, a plaster of paris filling inserted between said bottle neck and the auxiliary neck from top to bottom thereof, and inserted in the said indentations and grooves to secure said necks together, a sheathing surrounding said auxiliary neck exteriorly and secured thereto, and having a projection or extension which is secured to the side of the bottle, an integral cylindrical head extending upwardly from said auxiliary neck and inwardly projected at its junction therewith, and formed slantwise, above which said head is downwardly inclined and interiorly curved to form a valve seat, a ball valve normally resting upon said seat and longitudinally movable in said head, integral lugs projecting horizontally and radially from the inside of said head near the centre thereof to limit the movement of said valve, the said head being closed at the top, and having an aperture in the side thereof, a stopper inserted transversely through said aperture and bearing against the opposite side of the head, a segmental spring metallic plate secured to the outside of said stopper by means of a rod extending there-through said plate surrounding the said head to secure the said stopper in place, substantially as shown and described.

**No. 44,833. Clay Tempering Machine.**

(Machine à marcher la clay.)

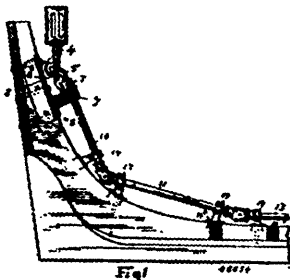


William F. Cook and T. M. Walker, both of Des Moines, Iowa, U.S.A., 3rd May, 1895; 6 years.

*Claim.*—1st. An improved clay tempering machine, comprising a suitable conveyor, a rock shaft mounted above the conveyor, one or more levers fixed thereto, a device on the end of the levers to engage the clay on the conveyor, a pipe connected with the machine and leading from a suitable source of water supply to discharge into the clay as it passes from the machine, a valve in said pipe and means connected with the said shaft for operating the valve, when the shaft is rocked, for the purposes stated. 2nd. An improved clay tempering machine, comprising a suitable conveyor, means for placing clay on one end thereof, a roller supported above said conveyor and adapted to be elevated or lowered in proportion to the thickness of the layer of clay on the conveyor, a water supply pipe adapted to discharge into the clay as it passes from the conveyor, a valve in said pipe and means for connecting said valve with said roller to open the valve as the roller is elevated and vice versa, for the purposes stated. 3rd. An improved clay tempering device, comprising a suitable frame, an endless conveyor mounted thereon, means for operating the conveyor, a rock shaft mounted in suitable bearings above the conveyor, two arms fixed thereto, a roller mounted in their outer ends, means for rotating said roller as set forth, a pipe leading from a suitable source of water supply to discharge into the clay as it leaves the conveyor, a valve in said pipe, an arm connected with said valve, a lever fixed to the aforesaid rock shaft, and a rod connecting said lever and arm, for the purposes stated. 4th. An improved clay tempering device comprising a suitable frame, an endless conveyor mounted thereon, means for operating the conveyor, a rock shaft mounted in suitable bearings above the conveyor, two arms fixed thereto, a roller mounted in their outer ends, means for rotating said roller as set forth, a pipe leading from a suitable source of water supply to discharge into the clay as it leaves the conveyor, a valve in said pipe, a segmental slotted arm fixed to said valve, a lever fixed to said shaft and a rod fixed to said lever and adjustably connected with the slotted arm, for the purposes stated. 5th. An improved clay tempering device, comprising a suitable frame, an endless conveyor mounted thereon, means for operating the conveyor, a rock shaft mounted in suitable bearings above the conveyor, two arms fixed thereto, a roller mounted in their outer ends, means for rotating said roller as set forth to normally rest upon the conveyor, a pipe leading from a suitable source of water supply to discharge into the clay as it leaves the conveyor, a valve in said pipe, a segmental slotted arm fixed to said lever and adjustably connected with the slotted arm, a hopper supported above one end of the conveyor, side boards at the sides of the conveyor and means for adjustably supporting one of said pipes above the conveyor, all arranged and combined substantially as and for the purposes stated.

**No. 46,834. Boat Detaching Apparatus.**

(Appareil pour détacher les bateaux.)



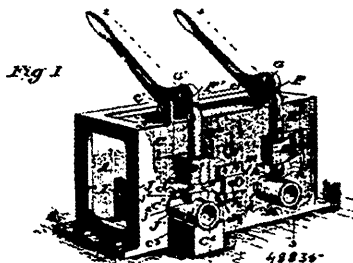
Henry E. Bottmer, Washington, Columbia, U.S.A., 3rd May, 1895; 6 years.

*Claim.*—1st. In combination in a boat detaching apparatus, the

rotary holding and releasing device for the fall, and the means for giving the same rotary movement, comprising the continuous flexible shafting conforming to its central portion to the boat's bottom and having upturned end portions carrying the rotary devices at their upper ends, substantially as described. 2nd. In combination, a boat detaching apparatus, the continuous flexible shafting conforming to the boat's bottom, and having upturned end portions conforming to the ends of the boat, the latches pivoted at the ends of the boat and extending downward, and the means for retaining the said latches consisting of the rotary clutches each having an open top and an open inclined or vertical side to receive the latches, said clutches extending upwardly from the upturned ends of the flexible shaft, substantially as described. 3rd. In combination, in a boat detaching apparatus, the flexible shaft conforming to the boat's bottom, and having upturned ends conforming to the ends of the boat, the latches pivoted to the ends of the boat, and extending downwardly from the pivotal points, said latches having off-set bearing shoulders for the fall hook at a point below the said pivot, whereby the strain of said hook is longitudinally of the latch toward the pivot, and the means for retaining the latch against lateral movement, consisting of the rotary clutches on the upturned ends of the flexible shafting, substantially as described. 4th. In combination, in a boat detaching apparatus, the rotary holding and releasing devices for the fall, the continuous flexible shafting having upturned ends to connect with the rotary holding devices, and a central portion conforming to the boat's bottom, the pinion on said central portion, the segment operating laterally of the boat and meshing with the pinion and the means for operating the segment, substantially as described. 5th. In combination in a boat detaching apparatus, the rotary holding and releasing devices for the fall, the continuous flexible shafting having upturned ends to connect with the rotary holding devices, and a central portion conforming to the boat's bottom, the pinion on said central portion, the segment operating laterally of the boat and meshing with the pinion and the means for operating the same from the ship's deck, substantially as described. 6th. In combination, the releasing device at the ends of the boat, the shafting between said device and the pivoted lever for operating the shafting adapted to be turned down within the boat, and the pivoted guide-bar for the lever, substantially as described.

**No. 48,835. Machine for Forming Stovepipe Joints.**

(Machine pour former les joints de feuilles de tuyaux.)

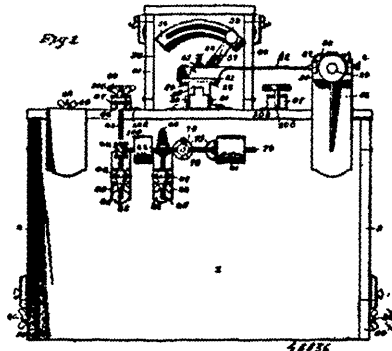


Josiah Edward Smiley, Smiley, Ohio, U.S.A., 3rd May, 1895; 6 years.

*Claim.*—1st. In a machine for the purposes described, the combination with the main frame, a vertically movable plunger having a female die at the bottom, said frame having a bed plate formed with a female die portion, said frame having an aperture between the plunger and bed plate, of a pivoted member having its front end passed through the said opening between the plunger and bed plate said end having male die portions, and the lever mechanism connected with the plunger, all arranged substantially as shown and described. 2nd. In a machine as described, the combination with the main frame, the plunger E<sup>1</sup> and the lever mechanism, said main frame having an opening C<sup>1</sup> of the bed plate C<sup>2</sup>, the pivoted member J, having its front end projected through the said opening and extended between the plunger E<sup>1</sup> and the plate C<sup>2</sup>, said member having a transverse recess J<sup>2</sup>, the boxing N, and the arm M adjustably held therein and projected to engage the recess J<sup>2</sup> when moved outward, all arranged substantially as shown and for the purposes described. 3rd. An improved machine for the purpose described, comprising a frame, a fixed mandrel having a female cutting die on its upper face, a vertically movable mandrel having male dies on its upper and lower faces, a bed plate having a female die on its upper face, plungers vertically movable over the mandrel having female die members, and lever mechanism for operating the plungers, all arranged substantially as shown and described.

## No. 48,836. Feeder for Mills.

(Alimentateur pour moulins.)



John Peter Wehrer, La Crosse, Wisconsin, U.S.A., 3rd May, 1885; 6 years.

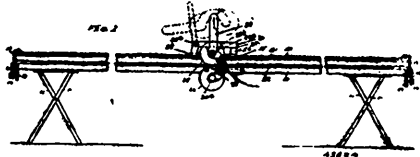
*Claim.*—1st. In an automatic feeder of the class described, the combination of the casing, a vibrating feed pan suspended within the casing, and provided with inclined imperforate bottom boards declining from both sides of the centre thereof, separating sieves forming front extensions of said bottom boards and horizontal distributing boards disposed below said front sieves in front of the inclined bottom boards and the hopper, substantially as set forth. 2nd. In a machine of the class described, the casing, a longitudinally vibrating feed pan arranged within said casing, swinging spring metal bumper straps secured at their lower ends to the corners of said pan, adjustable supporting blocks attached to the upper ends of said straps, clamp plates secured to the inner sides of the casing and provided with inner grooved sides embracing said supporting blocks, clamp bolts connecting the inner ends of said clamp plates beyond said blocks, screw rods attached to said adjustable supporting blocks and working through the top of the casing, thumb nuts engaging said screw rods above and below the top of the casing and the feed devices for said pan, substantially as set forth. 3rd. In a machine of the class described, the combination of the casing, the swinging feed pan suspended within the casing, upright shaker-bars attached to said feed pan and working in slots in the top of the casing, the drive shaft supported for rotation above the casing, operating connections between said drive shaft and the upper ends of said shaker bars, and the feed devices for said pan, substantially as set forth. 4th. In a machine of the class described, the combination of the casing, the swinging feed pan adjustably suspended within the casing, upright shaker bars attached centrally to opposite sides of the pan and projecting through slots in the top of the casing, a transverse drive shaft arranged on top of the casing and provided with opposite eccentrics, spring pitmen provided at one end with adjustable bows clamped on the eccentrics of said shaft, vertically adjustable cap plates provided with opposite flanges and longitudinally slotted strap arms embracing the upper ends of said shaker bars and with horizontal flanged top seats adapted to have clamped thereon the other ends of said spring pitmen, clamp bolts passed through the upper ends of the shaker bars and engaging the slots of said strap arms, adjusting set screws working through threaded openings in one end of the pitmen and the top of said cap plates to impinge against the upper ends of said shaker bars, and the feed devices for the pan, substantially as set forth. 5th. In a machine of the class described, the combination of the casing open at its bottom and provided at opposite ends thereof with mote boxes, a longitudinally vibrating feed pan supported to swing in said casing and provided with inclined bottom boards and separating sieves in front of said boards, and the feed boxes or chutes arranged to discharge onto the inclined bottom boards of said feed pan, substantially as set forth. 6th. In a machine of the class described, the combination of the open bottom casing provided at opposite ends with removable mote boxes having sieve bottoms, the swinging feed pan suspended within the casing and provided with inclined imperforate bottom boards declining from both sides of the centre thereof, separating sieves forming front continuations of said bottom boards, and horizontal distributing boards disposed below said front sieves in front of the inclined bottom boards, and the feed boxes or chutes arranged to discharge onto the inclined bottom boards of said feed pan, substantially as set forth. 7th. In a machine of the class described, the combination of the open bottom casing, mote boxes removably clamped to opposite lower ends of the casing and provided with sieve bottoms comprising a parallel series of sieve wires, the swinging feed pan suspended within the casing and provided with opposite inclined imperforate bottom boards, inclined separating sieves extended in front of said bottom boards and comprising a parallel

series of sieve wires supported with their inner ends fitted in the outer edges of said bottom boards and arranged wider apart than the wires in the bottom of the mote boxes, and the horizontal distributing boards arranged directly under said sieves in front of the inclined bottom boards, and the feed boxes or chutes arranged to discharge onto the inclined bottom boards of said feed pan, substantially as set forth. 8th. In a machine of the class described, the combination of the open bottom casing, the swinging or longitudinally vibrating feed pan arranged within the casing and provided with a series of its center inclined bottom boards and separating sieves beyond such boards, downwardly flared feed boxes or chutes secured within the casing directly over the inclined bottom boards of the pan, and pointed dividing plates supported for longitudinal adjustment within said feed boxes or chutes, substantially as set forth. 9th. In a machine of the class described, the combination of the open bottom casing, the swinging feed pan suspended within the casing and having opposite inclined bottom boards and separating sieves beyond said boards, downwardly flared feed boxes or chutes secured within the casing directly over said bottom boards of the pan and provided at their lower ends with opposite inner parallel slide grooves, slide blocks mounted to slide in said grooves, upright adjustable dividing plates working within said feed boxes or chutes and attached to said slide blocks, clamp strips attached to the front sides of said feed boxes or chutes, a clamp device attached to said dividing plates and adapted to be adjustably clamped to said clamp strips, and the hopper arranged on top of the casing, substantially as set forth. 10th. In a machine of the class described, the combination of the casing, the swinging feed pan having opposite inclined bottom boards and separating sieves, feed boxes or chutes attached to the top of the casing and depending therefrom directly over said bottom boards, adjustable dividing plates mounted within said feed boxes or chutes, a hopper box mounted on top of said casing and provided with separated bottom openings communicating with the upper ends of the said feed boxes or chutes, a dividing board or valve pivotally mounted within said hopper box, an adjusting arm connected to the pivotal support of said board or valve, and a clamp device for said adjusting arm, substantially as set forth. 11th. In an automatic feeder of the class described, the casing, a vibrating feed pan suspended within the casing and provided with an inclined bottom board and separating sieves, a feed box or chute arranged over said inclined bottom board, and a self-adjusting feed regulating gate supported over said inclined bottom board in close proximity thereto in front of said box or chute, said gate being provided with a separate lock board disposed at an angle thereto, and having its lower edge terminating short of the lower edge of the gate, substantially as set forth. 12th. In an automatic feeder of the class described, the combination of the casing, a vibrating feed pan suspended within the casing, a feed box or chute arranged over the pan, a transverse gate shaft loosely journaled in the casing, swinging gate arms attached at one end to said shaft, and a self-adjusting feed regulating gate adjustably attached to the other free ends of said arms and arranged to work in front of the feed box or chute over the feed pan, substantially as set forth. 13th. In an automatic feeder of the class described, the combination of the casing, a vibrating feed pan suspended within the casing, the hopper feeding onto said pan, a transverse gate shaft loosely journaled in the casing, swinging gate arms attached at one end to said shaft and provided at their opposite ends with an open boxing having aligned guide openings and depending parallel guide strips or arms, a self-adjusting feed regulating gate arranged to work within the pan directly over its bottom, U-shaped clamps attached to the upper edge of said gate and provided with opposite slotted grooves receiving said guide strips or arms, a transverse swinging gate arm secured to one end of said gate, and automatic gate adjusting devices attached to the projecting extremity of said gate shaft, substantially as set forth. 14th. In an automatic feeder of the class described, the combination of the casing, a vibrating feed pan suspended to work within the casing, a hopper feeding onto said pan, a transverse gate shaft loosely journaled in the casing and having off-standing swinging gate arms, a self-adjusting feed regulating gate adjustably attached to said gate arms and working within the pan, said gate shaft projecting at one end outside of the casing, and automatic gate adjusting devices attached to the projecting extremity of said gate shaft, substantially as set forth. 15th. In an automatic feeder of the class described, the combination of the casing, the vibrating feed pan within the casing, the hopper, a transverse gate shaft having swinging gate arms carrying a feed regulating gate, a sleeve clamped onto one end of said gate shaft, a screw rod clamped to said sleeve, adjustable balancing and regulating weights having threaded openings engaging said screw rods at both sides of the sleeve, an adjustable retractile spring connected to said screw rod adjacent to said sleeve, and upper and lower screw caps for said screw rod, substantially as set forth. 16th. In an automatic feeder of the class described, the combination of the casing, the vibrating feed pan within the casing, the hopper, a transverse gate shaft having swinging gate arms carrying a feed regulating gate, a sleeve clamped onto one end of said gate shaft, a rod mounted in said sleeve and extending to both sides thereof, balancing and regulating weights adjustably mounted on opposite ends of said rod, a hook arm attached to said rod near to the sleeve,

a spring adjusting device arranged below said hook arm, a retractile spring connected at one end to said hook arm and at its other end to said adjusting device, and upper and lower gages for one end of said rod, substantially as set forth. 17th. In an automatic feeler of the class described, the combination with the casing, the vibrating feed pan, the hopper and the gate carrying shaft, of a weight and spring adjusted rod secured to one end of said gate shaft and provided at one end with a stop collar, an off standing bracket secured to one side of the casing, a lower vertically adjustable screw gage rod mounted in said bracket, separate adjusting and thumb nuts engaging said screw gage rod to provide for the adjustment thereof, a swinging bracket arranged above said stop collar, a combined pivot and clamp screw securing said swinging bracket to the top of the casing, and an upper screw gage rod similarly adjustable to the lower gage rod and adapted to be swung in and out of vertical alignment therewith, said stop collar being adapted to play between said gage rods, substantially as set forth.

**No. 44,827. Board and Cutter for Paper Hangers.**

(Planche et couteau pour colleurs.)



Alonzo H. Seaver, Webster City, Iowa, U.S.A., 3rd August, 1895; 6 years.

**Claim.**—1st. A combined board and cutter, comprising a leaf or support having a longitudinal track and rack thereon, a carriage held to slide on the track, a handle frame hinged to the carriage, the frame having a depending arm at one end, cutters carried by the arm, a transverse shaft journaled in the frame and adapted to carry one of the cutters, and a cog-wheel secured to the shaft and held to engage the rack, substantially as specified. 2nd. The combination, with a straight edged leaf support having a longitudinal rack thereon, of a carriage held to slide on the leaf and provided with an upwardly swinging portion, revolvable disc cutters mounted on the carriage and turning near the edge of the leaf, and a gear-wheel mounted on the swinging portion of the carriage to engage the rack and drive the cutters, substantially as specified. 3rd. A combined board and cutter comprising a board or support, a swinging leaf hinged to the board, a carriage held to slide on the leaf, a handle frame hinged to the carriage, cutters carried by the frame and arranged opposite the free edge of the leaf, and a gear mechanism for revolving the cutters by the movement of the carriage, substantially as specified. 4th. A combined board and cutter, comprising a flat board, end strips adapted to slide on the board and swing vertically, a straight edged swinging leaf hinged to the end strips and adapted to fold upon the board, abutment springs secured to the board in the paths of the end strips, a carriage held to slide upon the leaf, revolvable cutters mounted on the carriage and arranged opposite the outer edge of the leaf and board, and a gear mechanism for rotating the cutters by the movement of the carriage, substantially as described. 5th. The combination, with the swinging leaf having the gear track thereon, of the carriage held to slide on the leaf, the vertically swinging frame hinged to the carriage and provided with a handle and a depending arm extending opposite the edge of the leaf, the arm having a bevelled edge and a cutting disc pivoted near its lower end, a transverse shaft journaled on the swinging frame, a cutter carried by the shaft and arranged to turn opposite the cutter on the depending arm, and a gear wheel on the shaft adapted to engage the gear track on the leaf, substantially as specified.

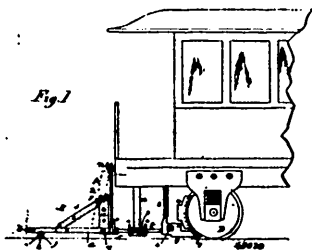
**No. 44,828. Car Fender and Brake.**

(Défense et frein de char.)

William McBeth, Hamilton, and Harriet Belle Lewis, Winona, both in Ontario, Canada, 3rd May, 1895; 6 years.

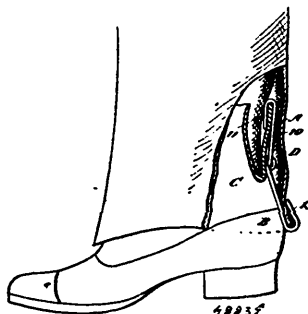
**Claim.**—1st. In combination with an electric or other railway car, of a fender frame covered with netting, and constructed to be hung on the end of a car, the frame of the fender made adjustable by slotted diagonal braces by which the fender can be regulated vertically to suit all grades of a track, substantially as and for the purpose specified. 2nd. The combination with a railway car, of a frame *a, b, c*, standards *d, d'*, horizontal bars *e, e'*, vertical hangers *l, l'*, and adjustable diagonal braces *f, f'*, provided with slots *g*, and covering *z* to adjust the front end of the frame *a* to the desired height, substantially as described. 3rd. The combination with a railway car, of a frame *a, b, c*, standards *d, d'*, vertical hangers *l, l'*, provided with openings *m, m'*, adjustable diagonal braces *f, f'*, with rubber covering *z*, connecting the standards *d, d'*, with the frame *a*, netting *x*, shaft *j*, and rollers *k*, all substantially as and for the pur-

pose specified. 4th. The combination with an electric or other railway car, of a frame *a, b, c*, standards *d, d'*, horizontal bars *e, e'*, vertical hangers *l, l'*, provided with openings *m, m'*, adjustable diagonal braces *f, f'*, with covering *z*, shaft *j*, rollers *k*, rubber tubing *h*, and cushion *p*, all constructed substantially as and for the purpose specified.



5th. In an electric or other railway car, the combination with a fender of brake shoes, and brake shoe rods, the same constructed to be operated by the fender being pushed against the brake shoe rods, when meeting an obstruction on the track, to apply the brakes on the wheels automatically, substantially as set forth. 6th. In an electric or other railway car, the combination with a fender *A*, of brake shoes *g*, connected by a shaft *r*, supported by springs *s*, brake rods *t, t'*, attached to the brake shoes, brackets *u*, provided with lugs *4*, and spiral springs *v, v'*, to push the brake shoes off the car wheels, and brake rods operated by the rear contact movement of the fender *A* against the said brake rod, substantially as and for the purpose specified. 7th. In an electric or other railway car, the combination of the fender and the brake mechanism, substantially as and for the purpose specified.

**No. 44,829. Trousers Protector.** (Protecteur de pantalon.)



Frank W. Richardson and William H. Gomersall, Brooklyn, both of the State of New York, U.S.A., 3rd May, 1895; 6 years.

**Claim.**—1st. A trousers supporter, the same comprising two members having a loose hinge connection, and hooks formed at their outer ends at opposite sides and extending in opposite directions, substantially as and for the purpose specified. 2nd. A trousers supporter, the same consisting of two sections having a pivotal connection, each section being constructed of spring metal and each section terminating at its outer end in a hook, the hooks being upon opposite sides of the sections and extending in direction of the pivot connection of the sections, and a yielding connection between the sections, as and for the purpose set forth. 3rd. A trousers supporter, the same consisting of two sections having pivotal connection, each section being constructed of spring wire and one section being larger than the other, each section terminating at its outer end in a hook, the hooks being at opposite sides of the section and made to extend in opposite directions, each hook facing the pivot connection between the sections, as and for the purpose specified.

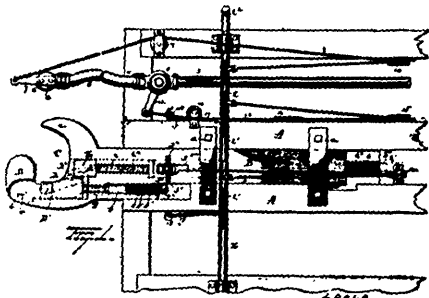
**No. 44,830. Car Coupler.** (Attelage de chars.)

Richard J. Edwards, Galena, Illinois, U.S.A., 3rd May, 1895; 6 years.

**Claim.**—1st. In a car coupling, the combination with a draw-head, of a pivoted knuckle connected thereto, means for limiting the movements of said knuckle, means for cushioning the movements of the knuckle in both directions and a locking device for said knuckle, substantially as set forth. 2nd. In a car coupling, the combination with a draw-head, of a movable jaw connected thereto in such



manner as to be capable of a longitudinal and a pivotal movement, and means for limiting the pivotal movement of the jaw, consisting of a plate pivoted at one end to the jaw and provided at its other end with an elongated slot, and a pin projecting from the draw-head through said elongated slot, substantially as set forth. 3rd. In a car coupling, the combination with a draw-head of a movable jaw comprising a pivoted and longitudinally movable knuckle



having a shoulder, a plate pivotally connected to the knuckle and to the draw-head longitudinally movable block having a shoulder to be engaged by the shoulder on the knuckle, substantially as set forth. 4th. In a car coupling, the combination with a draw-head,

of a knuckle having an elongated slot, a pin passing through said slot and the draw-head, a shoulder on said knuckle and a movable block having a shoulder to be engaged by the shoulder on the knuckle, means yieldingly connecting said movable block with the draw-head and a plate pivotally connected to the knuckle and draw-head, substantially as set forth. 5th. In a car coupling, the combination with a draw-head, of a knuckle having a pivoted and a longitudinally movable connection therewith, a shoulder on said knuckle, a longitudinally movable block having a shoulder to be engaged by the shoulder on the knuckle, a rod extending from said block, shoulders on the draw-head, a spring on said rod bearing at its respective ends against one of said shoulders and said block, and a spring on the rod bearing at one end against the other shoulder, and a nut on the end of said rod to receive the other end of the said last-mentioned spring, substantially as set forth. 6th.

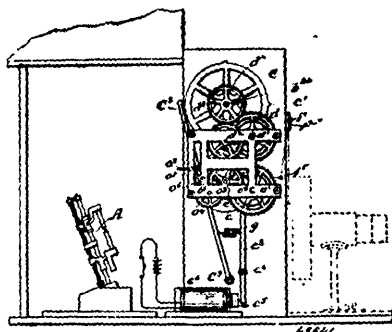
In a car coupling, the combination with a draw-head and bar having a socket or housing therein, of a movable knuckle connected to the draw-head, a movable block adapted to be engaged by said knuckle, a rod extending from said block and enclosed by said housing, shoulders in the housing, a nut on the end of the rod, and springs disposed between said shoulders and the nut and block respectively, substantially as set forth. 7th. In a car coupling, the combination with a draw-head and bar, of a pivoted knuckle having a shank, of a movable locking block adapted to lie parallel with said shank, a rod connected with said locking block, a block at the rear end of said rod, an arm connected with said last-mentioned block, a washer in the draw-bar and a spring between said washer and the locking block, substantially as set forth. 8th. In a car coupling, the combination

with a draw head and bar, of a movable knuckle connected thereto and having a shank, a locking block in the draw-head adapted to lie parallel with said shank, a rod connected to said locking block, a hollow block at the other end of said rod having a recess therein, an arm having an enlargement at one end to enter said recess, said arm being adapted to project through a slot in the draw-bar, and means connected with said arm for operating the locking block, substantially as set forth. 9th. The combination with a car coupling having a movable jaw and a locking device for said jaw, an air-brake pipe having a valve therein, and a pipe coupling connected with said pipe of a crank-shaft, and connections between said crank shaft and the locking device of the coupling, the valve in the air pipe and the pipe coupling, said connections being so constructed and arranged that a single movement forwardly of the crank-shaft will act to close the valve in the air pipe, sever the pipe coupling and then operate the locking device of the car coupling to release the movable jaw, substantially as set forth. 10th. The combination with a car coupling having a locking device, an air pipe having a valve, and a flexible pipe having a pipe coupling of a crank shaft, and devices connecting the crank shaft with the locking device of the coupling, the valve in the air pipe and the pipe coupling, said devices being so constructed and arranged that upon movement in one direction of the crank-shaft, the said valve, the pipe coupling and the locking device will be successively operated, substantially as set forth. 11th.

The combination with a coupling having a locking device, an air pipe having a valve and a flexible pipe having a pipe coupling, of an arm on the stem of the valve, an arm or lever projecting from the pipe coupling, an arm connected with the locking device of the car coupling, a crank-shaft, a connection between the crank-shaft and the arm or lever on the pipe coupling, and a connection between the crank shaft and the arm of said valve, said last mentioned connection having a yielding section, substantially as and for the purpose set

forth. 12th. The combination with a car coupling having a locking device, an air pipe having a valve and a flexible pipe having a pipe coupling, of a crank-shaft, means for locking said shaft, and connections between said shaft and the locking device, valve and pipe coupling, substantially as set forth. 13th. The combination with a car coupling having a locking device, an air pipe having a valve and a flexible pipe having a pipe coupling, of a crank-shaft, connections between said crank shaft and locking device, valve and pipe coupling so constructed and arranged that upon movement of the crank-shaft in one direction said locking device, valve and pipe coupling will be operated, and a hook connected to the car and adapted to engage an arm projecting from said crank-shaft, whereby to retain the parts in an inoperative position, substantially as set forth. 14th. The combination with a car coupling, an air pipe having a valve therein, and a pipe coupling, of a crank-shaft, connections between said crank-shaft and the coupling, valve and pipe coupling for operating said devices, and means for operating the crank-shaft, substantially as set forth. 15th. In a car coupling, the combination with a draw-head, and a knuckle pivotally connected thereto, and capable of sliding therein of a plate having an elongated slot at one end and pin passing through this slot for connecting the plate loosely to a part of the coupling, said plate pivotally connected at its other end to the knuckle, substantially as set forth.

#### No. 48,842. Microscopicon. (Lantern magnum.)

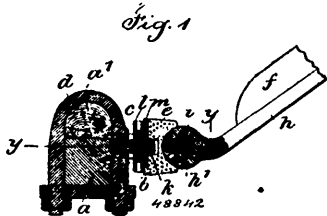


Edmund Hudson, Hartford, Connecticut, U.S.A., 3rd May, 1895  
6 years.

*Claim.*—1st. In a device of the kind described, a series of transparent slides, and actuating mechanism for moving them successively between the light and lens, a controlling lever for said actuating mechanism, and an electro-magnet governing the operation of said controlling lever, the circuit of which is operated from a distant point at the will of the operator, substantially as described. 2nd. In a device of the kind described, several transparent slides loosely connected together, one after another, and actuating mechanism for moving them successively between the light and the lens, a controlling lever for said actuating mechanism, and an electro-magnet governing the operation of said controlling lever, the circuit of which is operated from a distant point at the will of the operator, substantially as described. 3rd. In a device of the kind described, a series of loosely connected transparent slides, a drum over which they pass and by which they are held suspended between the light and lens, motor mechanism for rotating said drum for successively advancing said slides, a controlling lever for said motor mechanism, and an electro-magnet governing the operation of said controlling lever, the circuit of which is operated at will from a distant point, substantially as described. 4th. In a device of the kind described, a series of loosely connected slides, a drum over which they pass and by which they are held suspended between the light and lens, motor mechanism for rotating said drum for successively advancing the slides, a controlling lever for said motor mechanism, and an electro-magnet governing the operation of said controlling lever, the circuit of which is operated at will from a distant point, substantially as described. 5th. In a device of the kind described, the transparent plates *a*, having pictures thereon adapted to be projected upon a curtain, two metallic end clips for each plate, extensible connections for said clips, whereby they may be separated to disengage the plate, and flexible connections connecting each pair of clips to the pair next to it, to thereby form a series of loosely connected detachable slides, substantially as described. 6th. In a device of the kind described, a series of slides and a screen, and actuating mechanism for successively moving the slides between the light and lens, and simultaneously operating the screen, a releasing lever therefor, an electro-magnet governing the operation of said releasing lever, the circuit of which is operated from a distant point, substantially as described.

7th. In a device of the kind described, a series of loosely connected slides, a drum over which they pass and by which they are held suspended between the light and lens to be displayed, a screen normally held at one side of the particular slide which is being displayed, motor mechanism for moving said screen into position between said light and lens and thereafter restoring it to its normal position, and for rotating said drum to advance the slides during the time the said screen is in its abnormal position, the controlling lever for said motor mechanism, and an electro-magnet governing the operation of said controlling lever, the circuit of which is operated at will from a distant point, substantially as described. 8th. In a device of the kind described, a series of slides, an actuating train therefore, a screen and an actuating train therefore, a releasing device for the slide-actuating train controlled by the screen-actuating train, and a releasing device for the screen-actuating train, an electro-magnet controlling its operation, the circuit of which is operated from a distant point, substantially as described.

**No. 48,842. Thill Coupler. (Armon d. limonière)**



Fred Eugene Boss, New York, State of New York, U.S.A., 3rd May, 1895; 6 years.

*Claim.*—1st. The combination with the clip in a thill coupling, of a screw rigidly connected at its back end to the clip and projecting forward between the lugs, a nut upon such screw, and a rubber block which is compressed by the nut against the eye of the thill iron, substantially as specified. 2nd. The combination with the clip in a thill coupling, of a screw rigidly connected at its back end to the clip and projecting forward between the lugs, a nut upon such screw, a rubber block which is compressed by the nut against the eye of the thill iron and a plate between the rubber block and the nut, substantially as specified. 3rd. The combination with the clip in a thill coupling, of a screw rigidly connected at its back end to the clip and projecting forward between the lugs, a nut upon such screw, a rubber block having a hole to set over the point of the screw, a plate between the rubber block and the nut and filling the space between the lugs of the clip, there being interlocking recesses and projections on the respective surfaces of the nut and plate, substantially as specified.

**No. 48,843. Coke Oven. (Fourneau pour le coke.)**



Thomas Cummings and Joseph Cummings, both of Hartcourt, Tennessee, U.S.A., 3rd May, 1895; 6 years.

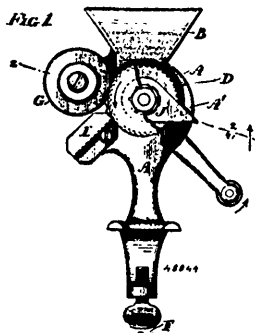
*Claim.*—1st. In a coke-oven having a longitudinal chamber with arched openings at the ends, the combination of metallic lazy bar supports as shown and described, built or enclosed in the jambs of the openings, the supports adapted to support a lazy bar, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with a longitudinal coke-oven chamber A, having arched openings C, at each end the openings formed the full width of the chamber, the jambs of the openings provided with lazy bar supports as described, and the chamber arched roof F supported on the side walls, the chamber arch provided with tunnel heads G, having a bell-shaped mouth at the bottom, the top of the tunnel heads provided with dampers H, to partly cover the openings to desulphurize the coke, substantially as and for the purpose hereinbefore set forth.

**No. 48,844. Raisin-seeder. (Vide-raisin.)**

Frank Howard Chase, Chicago, Illinois, U.S.A., 4th May, 1895; 6 years.

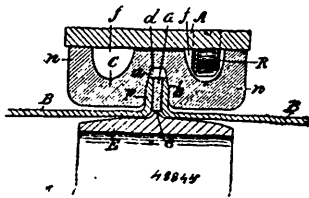
*Claim.*—1st. In a raisin-seeder, the combination with a suitable frame, a pulp cylinder having portions of reduced diameter, means for impinging the pulp upon the cylinder and means for turning the cylinder, of a number of strippers suspended from the reduced portions of the cylinder and projecting beyond the periphery of the

cylinder, substantially as set forth. 2nd. In a raisin-seeder the combination with a frame a pulp cylinder having a number of circumferential grooves, and means for turning the cylinder, a number of strippers suspended in the grooves, from the axis of the cylinder, and projecting beyond the periphery of the cylinder, and



means for preventing the strippers from turning with the cylinder, substantially as set forth. 3rd. In a raisin-seeder, the combination with a frame and a shaft of a number of discs carried by the shaft, a number of washers alternating with the discs, a number of strippers loosely suspended from the washers and projecting beyond the peripheries of the discs, and a stop for preventing the strippers from turning with the discs, substantially as set forth. 4th. In a raisin-seeder, the combination of a frame, a shaft journaled therein, and having a shoulder, a number of discs and washers arranged on the shaft alternately, so as to form a circumferentially grooved cylinder, a nut turned on to the shaft and clamping the discs and washers against each other and against the shoulder of the shaft, a number of strippers perforated to fit loosely over the washers and projecting beyond the periphery of the cylinder, and a stop for preventing the strippers from turning with the cylinder, substantially as set forth.

**No. 48,845. Barrel or Package. (Baril et paquet.)**



Robert A. Townsend and William Yates, Kurraichi, Soolhi, India, and London, Ontario, Canada, respectively, 4th May, 1895; 6 years.

*Claim.*—1st. A barrel or package section B, formed with an angular or curved flange F, substantially as and for the purpose set forth. 2nd. A barrel or package section B, formed with an angular or curved flange F, having a bevelled face B, substantially as and for the purpose set forth. 3rd. A clamp formed with a groove, substantially as and for the purpose set forth. 4th. A clamp formed with a tapered or curved groove, substantially as and for the purpose set forth. 5th. A clamp composed of sections, in each of which a groove is formed, substantially as and for the purpose set forth. 6th. A clamp composed of sections, in each of which a tapered or curved groove is formed, substantially as and for the purpose set forth. 7th. The clamping band A, formed with a bevelled face, substantially as and for the purpose set forth. 8th. A strengthening hoop of metal or other suitable material lined with wood or other suitable material, substantially as and for the purpose set forth. 9th. The barrel or package, composed of two or more sections B, B, in combination with an internal hoop E, provided with a rib e, substantially as and for the purpose set forth. 10th. The barrel or package, composed of two or more sections B, B, provided with the flanges F, F, in combination with grooved clamping segments C, and means for tightly compressing said segments on said flanges, substantially as and for the purpose set forth. 11th. The barrel or package, composed of two or more sections B, B, provided with the flanges F, F, in combination with a packing G, grooved clamping segments C, and the clamping band A, substantially as and for the purpose set forth. 12th. The clamping band A, and grab screw or recesses R, in combination with a clamp C, formed with grooves or serrures f, substantially as and for the purpose set forth. 13th.

The barrel or package, composed of two or more sections B, B, provided with the flanges F, F, in combination with a packing G, bevelled clamping segments C, and the clamping band A, substantially as and for the purpose set forth. 14th. The barrel or package, composed of two or more sections B, B, provided with the flanges F, F, in combination with the grooved clamping segments C, the clamping band A, and the internal loop E, substantially as and for the purpose set forth. 15th. The barrel or package, composed of two or more sections B, B, provided with the flanges F, F, bevelled at *b*, in combination with the packing G, internal loop E, grooved clamping segments C, C, and the clamping band A, substantially as and for the purpose set forth. 16th. The barrel or package, composed of two or more sections B, B, provided with the flanges F, F, in combination with the packing G, internal loop E, grooved clamping segments C, C, formed with a tapered or curved face or faces *a*, and the clamping band A, substantially as and for the purpose set forth. 17th. The barrel or package, composed of two or more sections B, B, provided with bevelled flanges F, F, in combination with the packing G, internal loop E, grooved and bevelled clamping segments C, C, provided with the bearings *a*, *a*, and the clamping band A, substantially as and for the purpose set forth. 18th. A package composed of a section provided with a flange, in combination with a cover and means for fastening said cover to said section, substantially as and for the purpose set forth. 19th. A package composed of a section provided with a tapered flange, in combination with a cover, and means for fastening said cover to said section, substantially as and for the purpose set forth. 20th. The combination of any flanged section such as herein described, and a cover to be fastened thereto, by any grooved clamps such as herein described, and means for tightly compressing said clamps, substantially as and for the purpose set forth. 21st. A package, composed of a section provided with a flange, in combination with a cover fastened to said flange by grooved clamping segments, substantially as and for the purpose set forth. 22nd. A package, composed of a section provided with a tapered flange, in combination with a cover fastened to said flange by grooved clamping segments, substantially as and for the purpose set forth. 23rd. A package composed of a section B, provided with a flange F, in combination with a cover fastened to said flange F, by grooved clamping segments C, and clamping band A, substantially as and for the purpose set forth. 24th. A package composed of a section B, provided with a flange F, and the packing G, in combination with a cover fastened to said flange F, by grooved clamping segments C, and clamping band A, substantially as and for the purpose set forth. 25th. A package composed of a section B, provided with a flange F, the internal flanged loop E, and the packing G, in combination with a cover fastened to said flange F, by grooved clamping segments C, and clamping band A, substantially as and for the purpose set forth.

**No. 45,446. Combination Tool. (Outil à combinaison.)**



George J. Humbert, Morristown, Pennsylvania, C. Clark Patterson, Chicago, Illinois, Rolla C. Ruth, Alliance, Ohio, and Frank J. Ruth, Chicago, Illinois, assignors of Henry William Smith, Alliance, Ohio, all in the U.S.A., 4th May, 1895; 6 years.

*Claim.*—1st. A pair of pivoted levers having to one side of their pivotal point shear blades, and to the opposite side a crimping die, the latter crossing said levers transversely and extending to one side thereof, substantially as described. 2nd. In a cutting and crimping tool, the combination with cutting blades and their pivoted handles, and a pair of dies arranged at an angle to and offset from the plane of the shear blades, substantially as described. 3rd. In a cutting and crimping tool, the combination with cutting blades and their pivoted handles, of bosses arranged at an angle to and offset from the plane of the shear blades, and crimping dies formed on the meeting faces of said bosses, substantially as described.

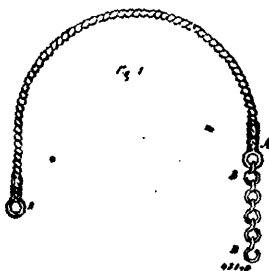
**No. 45,447. Collar Buckle. (Boucle de collier.)**



William Edward Kirkpatrick, Toronto, Ontario, Canada, 4th May, 1895; 6 years.

*Claim.*—As an article of manufacture, a buckle comprising the cross bars C, D and F, the side bars A and B, the hooks G and H, and the tongue E, all formed as and for the purpose herein before set forth.

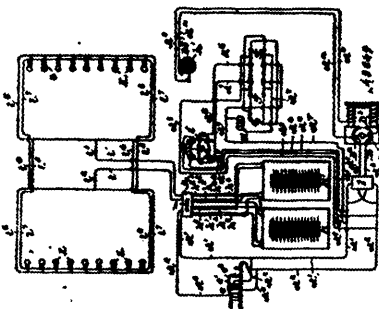
**No. 45,448. Attachment for Bridle Bit. (Attache pour mors de bride.)**



Richard Berry, assignee of Alexander Ross, both of Mildmay, Ontario, Canada, 6th May, 1895; 6 years.

*Claim.*—1st. The rope and chain attachment with ends A, A, and B, B, substantially as and for the purpose hereinbefore set forth. 2nd. The manner of applying the rope and chain attachment, substantially as and for the purpose hereinbefore set forth.

**No. 45,449. System of Lighting and Heating Cars by Electricity. (Système d'éclairage et chauffage électrique des chars.)**

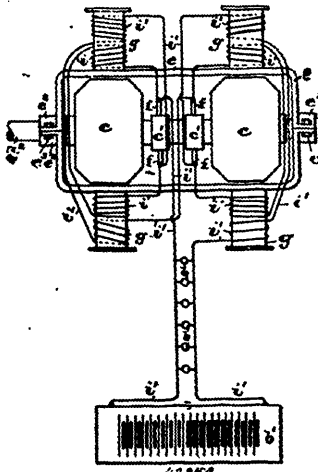


The National Electric Car Lighting Company, New York, State of New York, assignees of Morris Moskowitz, Newark, New Jersey, both in the U.S.A., 6th May, 1895; 6 years.

*Claim.*—1st. The combination with a working circuit and a lamp circuit containing lamps or other translating devices, of a pair of storage batteries, a dynamo, and a switch for connecting either one of said batteries, directly in circuit with the dynamo and the other of said batteries in circuit with the lamp circuit, said switch comprising therein, a pivoted handle *m*, contact arms *m*<sup>1</sup>, *m*<sup>2</sup>, and *m*<sup>3</sup>, *m*<sup>4</sup>, and contacts *m*<sup>5</sup> and *m*<sup>6</sup>, and *m*<sup>7</sup>, and *m*<sup>8</sup>, in the battery circuits, substantially as and for the purpose set forth. 2nd. The combination with a working circuit and a lamp circuit containing lamps or other translating devices, of a pair of storage batteries, a self-regulating dynamo, and a switch for connecting either one of said batteries directly in circuit with the dynamo, and the other of said batteries directly in circuit with said lamp circuit, said switch comprising therein a pivoted handle *m*, contact arms *m*<sup>1</sup>, *m*<sup>2</sup>, and *m*<sup>3</sup>, and contacts *m*<sup>4</sup>, and *m*<sup>5</sup>, and *m*<sup>6</sup>, and *m*<sup>7</sup>, in the battery circuits, substantially as and for the purpose set forth. 3rd. The combination,

with the main circuit containing lamps or other translating devices, of a storage battery, and a self-regulating dynamo, circuits  $d^1$  and  $d^2$ , connected with the main circuit, a volt meter or pressure regulator in said circuits  $d^1$  and  $d^2$ , circuits  $d^3$  and  $d^4$  connected with the main circuit, and a relay  $G$  in said circuits  $d^3$  and  $d^4$ , circuits  $d^5$  and  $d^6$  connecting said pressure regulator with said relay, and a rheostat  $H$  in circuit with the dynamo, said devices being adapted to decrease the electro-motive force in the field coils of the dynamo, and thereby equalize the voltage of the dynamo in the main circuit, substantially as and for the purposes set forth. 4th. The combination, with the main circuit containing lamps or other translating devices, of a storage battery, and a self-regulating dynamo, circuits  $d^1$  and  $d^2$ , connected with the main circuit, a volt meter or pressure regulator in said circuits  $d^1$  and  $d^2$ , circuits  $d^3$  and  $d^4$ , connected with the main circuit, and a relay  $G$  in said circuits  $d^3$  and  $d^4$ , circuits  $d^5$  and  $d^6$ , connecting said pressure regulator with said relay, a rheostat  $H$  in circuit with the dynamo, and a small motor  $I$  for automatically controlling the rheostat  $H$ , said devices being adapted to decrease the electro-motive force in the field coils of the dynamo, and thereby equalize the voltage of the dynamo in the main circuit, substantially as and for the purposes set forth. 5th. The combination with a working circuit and a lamp circuit containing lamps or other translating devices, of a pair of storage batteries, a self-regulating dynamo, a reversible driving power, a pole changer responsive to said reversing power, connected in circuit between the armature and said main circuit and a switch for connecting either one of said batteries, directly in circuit with the dynamo, and the other of said batteries directly in circuit with the lamp circuit, said switch comprising therein a pivoted handle  $M$ , contact arms  $m^1$ ,  $m^2$  and  $m^3$ , and contacts  $m^4$  and  $m^5$  and  $m^6$  in the battery circuits, substantially as and for the purposes set forth. 6th. The combination, on a railway car, of a dynamo pivotally mounted on the car-wheel axle and driven from said axle, a main circuit connected with said dynamo, containing lamps or other translating devices, a pair of storage batteries, and a switch for connecting either of said batteries directly in circuit with the dynamo, and the other of said batteries directly in circuit with the lamp circuit, and a pole changer in circuit between the armature and the main circuit, said switch comprising therein a pivoted handle  $m$ , contact arms  $m^1$ ,  $m^2$  and  $m^3$ , and contacts  $m^4$  and  $m^5$ , and  $m^6$  in the battery circuits, substantially as and for the purposes set forth. 7th. The combination on a railway car, of a self-regulating dynamo pivotally mounted on the car-wheel axle and driven from said axle, a main circuit connected with said dynamo, containing lamps or other translating devices, a pair of storage batteries and a switch for connecting either of said batteries directly in circuit with the dynamo, and the other of said batteries directly in circuit with said lamp circuit, and a pole-changer in circuit between the armature and main circuit, said switch comprising therein a pivoted handle  $m$ , contact arms  $m^1$ ,  $m^2$  and  $m^3$ , and contacts  $m^4$  and  $m^5$ , and  $m^6$  in the battery circuits, substantially as and for the purposes set forth.

**No. 48,850. Electric Lighting System for Railway Cars. (Système d'éclairage électrique des chars.)**

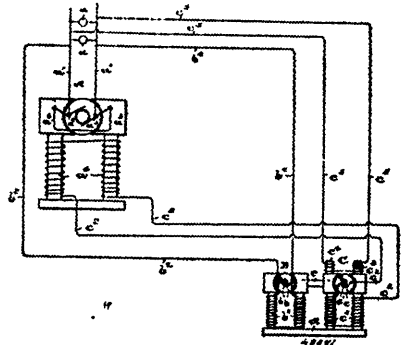


The National Electric Car Lighting Company, New York, State of New York, assignee of Morris Moskowitz, Newark, New Jersey, both in the U.S.A., 5th May, 1895; 6 years.

Claim—1st. In a system for electrically lighting railway cars, in

combination with the car-axle, frame sections  $c$  and  $c^1$  having bearing portions  $c^2$  and bolts  $c^3$  for securing said sections to the car-wheel axle, field magnets  $g, g^1$  on the outside of said frame sections, and two or more armatures arranged and wound on said axle and connected in series or tension, substantially as and for the purposes set forth. 2nd. In a system for electrically lighting railway cars, in combination with the car-axle, frame sections  $c$  and  $c^1$  having bearing portions  $c^2$  and bolts  $c^3$ , for securing said sections to the car-wheel axle, field magnets  $g, g^1$  on the outside of said frame sections, springs  $h, h^1$  connecting said frame sections with the truck frame, and two or more armatures arranged and wound on said axle and connected in series or tension, substantially as and for the purposes set forth. 3rd. In a system for electrically lighting railway cars, in combination with the car-axle, frame sections  $c$  and  $c^1$  having bearing portions  $c^2$  and bolts  $c^3$  for securing said sections to the car-wheel axle, field magnets  $g, g^1$  on the outside of said frame sections, springs  $h, h^1$  connecting said frame sections with the truck frame, and two or more armatures arranged and wound on said tube  $d$  and connected in series or tension, substantially as and for the purposes set forth. 4th. In a system for electrically lighting railway cars, in combination with the car-wheel axle, frame sections  $c$  and  $c^1$ , having bearing portions  $c^2$ , and bolts  $c^3$ , for securing said sections to the car-wheel axle, a tube  $d$  on the car-wheel axle between the bearing portions of said frame sections, a tube  $d^1$  on the car-wheel axle between the bearing portions of said frame sections, springs  $h$  connecting said frame sections with the truck frame, and two or more armatures arranged and wound on said tube  $d$  and connected in series or tension, substantially as and for the purposes set forth. 5th. In the herein described dynamo adapted to be mounted on a car-wheel axle, an armature winding, having the wires thereof, cushion supported and insulated, in the manner, substantially as and for the purposes set forth.

**No. 48,851. Means for Equalizing the Electro-motive Force of Dynamoes. (Moyen d'égaliser la force électro-motrice des dynamos.)**



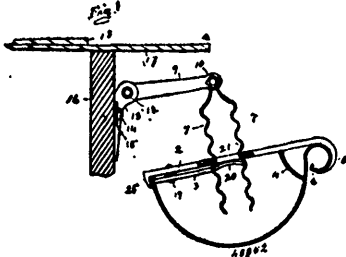
The National Electric Car Lighting Company, New York, assignee of Morris Moskowitz, Newark, New Jersey, all in the U.S.A., 5th May, 1895; 6 years.

Claim.—1st. In a means for the purpose of equalizing the electro-motive force of dynamos or other electrical apparatus running under variable speed, the combination of a dynamo electric generator, and a combined motor and regulating dynamo, the armature circuit of said regulating dynamo being in circuit with the magnetic fields of said dynamo electric generator, so that the electro-motive force of said regulating dynamo excites and controls the intensity of the magnetic fields of said dynamo electric machine, and means connected with the combined motor and dynamo shaft for operating the same, and an opposing circuit connecting the field coils of said regulating dynamo with the main circuit connected with said dynamo electric generator, counteracting the electro-motive force of said regulating dynamo to maintain the electro-motive force of the dynamo electric generator constant, substantially as and for the purposes set forth. 2nd. In a means for the purpose of equalizing the electro-motive force of dynamos or other electrical apparatus running under variable speed, the combination of a dynamo electric generator, and a combined motor and regulating dynamo, comprising therein a combined armature shaft  $c$ , a motor armature and brushes, and a dynamo armature and brushes on said shaft, the armature circuit of said regulating dynamo being in circuit with the magnetic fields of said dynamo electric generator, so that the electro-motive force of said regulating dynamo excites and controls the intensity of the magnetic fields of said dynamo electric generator, and means connected with the combined dynamo and motor shaft for operating the same, and an opposing circuit connecting the field of coils of said regulating dynamo with the main circuit connecting

with the said dynamo electric generator, counteracting the electromotive force of the said regulating dynamo, to maintain the electromotive force of the dynamo electric generator constant, substantially as and for the purposes set forth.

**No. 48,852. Eaves Trough Hanger.**

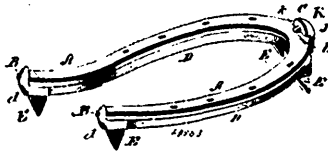
(Support pour fermiers de toits.)



Jeremiah Heron and William E. Gerding, both of Fort Wayne, Indiana, U.S.A., 6th May, 1895; 6 years.

*Claim.*—1st. In an eaves-trough hanger, a detachable cross-bar 2, centrally perforated to receive the hanger, having upon one end thereof a hooked arm adapted to embrace the trough head, and a dependent brace 4, as shown, and having upon its other end the vertical lug 25, and provided upon its lower side with a pivotally mounted key adapted in connection with the said lug 25 to form a locked engagement with the inner edge of the said trough, all substantially as described. 2nd. The combination in an eaves-trough hanger of the cross-bar 2, the corrugated hanger 7, mounted as shown, for a locked engagement with the said cross-bar, the pivotally mounted hanger arm 9 having upon its outer extremity a serrated face for the purpose specified, and a hanger bracket 13, having a perforated head and a radial tooth 23 to form a locked engagement with the said serrated face when secured by the rivet 12, all substantially as described. 3rd. The combination of the eaves-trough 1, the centrally slotted cross-bar 2, a hanger bracket 13, having a perforated head and a radial tooth 23 to engage the hanger arm 9, a hanger arm 9 having upon its outer extremity a serrated face for the purpose specified and proper means for adjustably connecting the hanger arm 9 with the cross-bar 2, all substantially as described. 4th. In an eaves-trough hanger the combination of the eaves-trough 1 having a proper head 6, a cross-bar 2 centrally slotted as shown, for the adjustable hanger, having upon one end the curved arm or brace 4, and upon the other end the vertical lug 25, and the pivotally mounted key 3 adapted in connection with the said lug 25 to firmly clamp the inner edge of the trough 1, and the proper means for suspending the said cross-bar from the eaves, all substantially as described. 5th. The combination of the eaves-trough 1, the centrally slotted cross-bar 2, constructed as described, and a hanger bracket 27 bent as shown, adapted to be secured to the roof at its upper end, and having its lower end provided with a series of lateral perforations 29 to receive in a locked engagement the lug 31, all substantially as set forth and described.

**No. 48,853. Horse-shoe. (Fer à cheval.)**

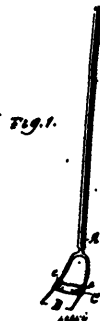


John J. Maloney, Middle Granville, New York, U.S.A., 6th May, 1895; 6 years.

*Claim.*—1st. In a horse-shoe, in combination, a permanent portion adapted to be nailed to the hoof of a horse, its heel ends terminating in dowels, the toe of the shoe having a recess C, the skeleton shoe D having removable calks and its heel ends terminating at right angles to the face of the shoe, the skeleton shoe having apertures H designed to receive the dowels on the permanent shoe, the upturned lugs J adapted to engage the recesses C and means for holding the shoe sections together, substantially as described. 2nd. In a horse-shoe, the combination of the permanent portion having its heel ends terminating in lugs, the toe portion recessed at C and L, of the skeleton shoe D having upturned heels perforated to receive the lugs upon the permanent shoe, the upturned portion J perforated and carrying a screw which is adapted to rest in the recess L, when the shoe portions or sections are sprung together, substantially as and for the purpose described.

**No. 48,854. Cutter Attachment for Forks.**

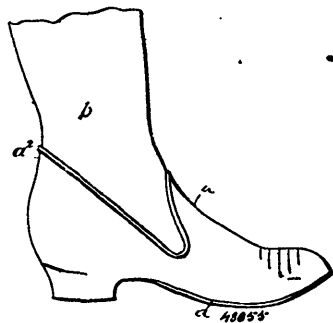
(Couppir pour fourches.)



Peter P. Dustrand, Sacred Heart, Minnesota, U.S.A., 6th May, 1895; 6 years.

*Claim.*—1st. In an agricultural implement, a fork having a cutter, said cutter being provided with cyclets for the reception of the fork tines, substantially as described. 2nd. An agricultural implement consisting of a fork having a removable cutter, said cutter being slightly curved and provided with cyclets at each end for the reception of the fork tines, substantially as described. 3rd. In an agricultural implement, a fork having a removable cutter, slightly curved, with a knife edge, the ends of said cutter having cyclets to engage the fork tines, substantially as described.

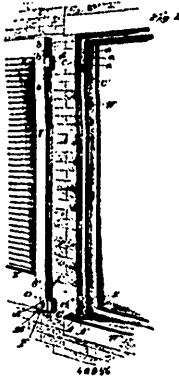
**No. 48,855. Foot Wear. (Chaussure.)**



Charles Leander Higgins, Montreal, Quebec, Canada, 6th May, 1895; 6 years.

*Claim.*—1st. A foot covering composed of a rubber foot portion and an upper or leg portion connected to the edge of the opening in the foot portion by stitching overlapping the edge of the leg portion, for the purpose set forth. 2nd. A foot covering composed of a rubber foot portion and knitted upper or leg portion connected to the edge of the opening in the foot portion by stitching overlapping the edge of the leg portion, for the purpose set forth. 3rd. A foot covering composed of a rubber foot portion, having an extended front tongue portion and a knitted leg portion connected therewith. 4th. A foot covering composed of a rubber foot portion having an extended front tongue portion and extended heel counter portion and a knitted leg portion connected therewith. 5th. A foot covering composed of a rubber foot portion, having an extended front tongue portion and a knitted leg portion connected to the edge of the opening in the foot portion by stitching overlapping the edge of the leg portion. 6th. A foot covering composed of a rubber foot portion, having an extended front tongue portion and an extended heel counter portion and a knitted leg portion connected to the edge of the opening in the foot portion by stitching overlapping the edge of the leg portion. 7th. A foot covering composed of a rubber foot portion a, having an extended front tongue portion a', and extended heel counter portion a', and a knitted leg portion b, connected to the edge of the opening in the front portion by stitching d, overlapping the edge of the leg portion.

**No. 48,856. Lock Hinge. (Penture-arret.)**



Zenas B. Chase, Bangor, Maine, and John W. McCluskey, Everett, Massachusetts, both in the U.S.A., 7th May, 1895; 6 years.

*Claim.*—1st. In a hinge, the combination with an angle plate whose upright member is secured to the outer face of the window frame and whose lower member has an upright pin and is provided with apertures in its upper face at opposite sides of the pin; of an angle-casting let into the blind, a collar at the transverse centre of said casting adapted to loosely surround said pin, and a bolt carried by the casting and adapted to engage either of said apertures, substantially as described. 2nd. In a hinge, the combination with an angle plate whose upright member is secured to the outer face of the window frame and whose lower horizontal member rests upon the window sill, has a central upright pin, and is provided with apertures in its upper face at the opposite sides of the pin; of an angle-casting let into the lower corner of the blind, a collar at the transverse centre of said casting adapted to loosely surround said pin, a bolt carried by the casting and adapted to engage either of said apertures, and an upper hinge, substantially as described. 3rd. In a hinge, the combination with an angle plate whose upright member is secured to the outer face of the window frame and whose lower horizontal member rests upon the window sill, has a central upright pin, and is provided with apertures in its upper face at opposite sides of the pin; of an angle casting let into the lower corner of the blind, a collar at the transverse centre of said casting adapted to loosely surround said pin, a box integral with and at the angle of the casting countersunk into the blind and having an upright cavity and an upright slot opening through the normally inner face of the blind, a bolt mounted in said cavity and having a handle projecting through its slot, the lower end of the bolt being adapted to engage either of said apertures; and an upper hinge, substantially as described. 4th. In a hinge, the combination with an angle plate secured to the outer face of the window frame and having a central upright pin and apertures at its upper face at opposite sides of the pin; of an angle-casting let into the lower corner of the blind, a collar on said casting adapted to loosely surround said pin, a box connected with the casting and having an upright cavity with a reduced upper end, an upright slot opening from the cavity through one face of the blind, a bolt mounted loosely in said cavity and having a reduced upper end passing through the reduced upper end of the cavity, an expansive spring coiled around the reduced upper end of the bolt between the shoulder thereon and the upper end of the cavity, a handle on the bolt projecting through said slot, the lower end of the bolt being adapted to engage either cavity in said angle plate, and an upper hinge, substantially as described.

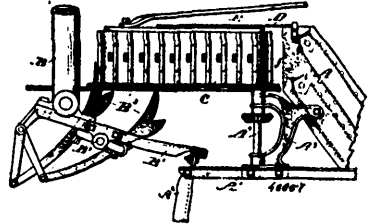
**No. 48,857. Grain Conveyor for Binders.**

(Transport à grain pour lienseux.)

The Deering Harvester Company, Chicago, assignee of Charles Whitney, Winnetka, both in Illinois, U.S.A., 7th May, 1895; 6 years.

*Claim.*—1st. As an article of manufacture, a grain adjuster belt adapted to operate in conjunction with a grain binder and packer fingers, said belt composed of strips of material pivotally connected together, their edges tongued and notched and formed into tubes and connected to each other by a rod of wood, said tubes made so as to perform the office of slats wholly upon one surface of said belt, and have holes adjoining said tubes and thus adapted to permit the entrance of sprockets of the wheels employed to drive it in order that the said sprockets of the latter may have a large engaging surface with the said belt, substantially as described. 2nd. A grain straw conveyor consisting of a series of thin metal plates hinged-jointed together by means of tongues and notches, the said tongues all rolled into the form of tubes that lie wholly upon one

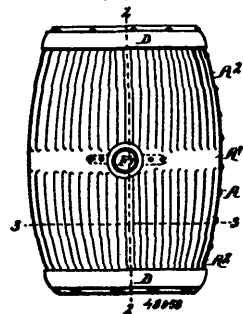
side of the said metal plates, rods passing therethrough, openings in the said plates adjacent to said tubes in combination with a wheel, its sprockets adapted to pass through the openings thus provided and act upon the surface of said tubes in giving motion to the said grain conveyor, substantially as described. 3rd. A grain straw conveyor consisting of a series of plates jointed together, said plates of a length equal to the width of the conveying device to be produced,



and having the tongues  $c^1$ ,  $c^2$  and  $c^3$ , and the notches  $c^4$ ,  $c^5$  and  $c^6$ , said tongues and said notches adapted to intermesh with adjacent tongues, and said tongues bent into tubular form and thus adapted to have pivot rods pass therethrough the said notch or notches  $c$  having a supplemental notch  $c^7$  for the adjustment of the sprocket for moving the said conveying device, all combined, substantially as described. 4th. As an article of manufacture a grain adjuster belt adapted to operate in conjunction with a grain binder and packer fingers composed of strips of material pivotally connected with each other, said pivotal connection adapted to form projections wholly on the outer surface of said belt and having notches or holes adjoining said pivotal connections adapted to receive sprocket teeth for propelling the same, substantially as described. 5th. A grain straw conveyor consisting of a series of plates jointed together, one or both of said edges of said plates adapted to form such a protrusion from the operative surface adjacent to the grain acted upon as to aggressively engage the latter and thus convey it, said joint so located and formed as to serve as a slat or otherwise aggressive member for engaging the grain, substantially as described. 6th. A grain-straw conveyor consisting of plates jointed together, said plates of a length equal to the width of the conveying device to be produced, and having the tongues  $c^1$ ,  $c^2$  and  $c^3$  and the notches  $c^4$ ,  $c^5$  and  $c^6$ , said tongues and said notches adapted to intermesh with adjacent notches and tongues, and the material of the said tongues bent into tubular form and thus adapted to have pivot rods pass therethrough, substantially as described. 7th. A grain straw conveyor consisting of a series of tongues and notched plates, the said tongues bent into tubular form and so adapted that the tubes of one section thus formed can intermesh with the tube or tubes on the adjacent section, and have a cylindrical  $j$  pass through said tubes to form the said joints, substantially as described. 8th. A grain straw conveyor consisting of a series of jointed plating having slats or lugs thereon in combination with polygonal driving drums and a suitable frame for supporting the same, substantially as described. 9th. A metallic link belt composed of strips of material pivotally connected to each other, said pivotal connections adapted to form suitable lugs for aggressively engaging the grain, combined with polygonal drums for operating the same, substantially as described.

**No. 48,858. Metallic Barrel or Package.**

(Baril ou paquet en métal.)

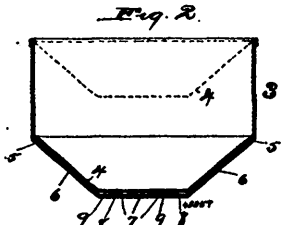


George Waterson, Rochester, Michigan, Clara H. Wildeman and Charles Houts, both of Seville, Ohio, all in the U.S.A., 7th May, 1895; 6 years.

*Claim.*—1st. In a barrel or package, a body formed of sheet metal

having two of its edges united, said body provided with a series of longitudinal tapering corrugations deepening gradually from near the middle of the body toward the extremities thereof, thereby contracting the diameter of the body at its extremities and forming a plain bilge at the middle of the body, substantially as set forth. 2nd. In a barrel or package, the combination of a body formed of sheet metal having two of its edges united, and heads engaged with the extremity of the body, said body provided with a series of longitudinal tapering corrugations deepening gradually from near the middle of the body toward the extremities thereof, thereby contracting the diameter of the body at its extremities to engage said heads and forming a bilge at the middle of the body, the body being curved on the arc of a circle from end to end, substantially as set forth. 3rd. In a barrel or package, the combination of a body domed of sheet metal having two of its edges united, heads formed with an outwardly turned flange at the periphery thereof to form a chime, said flange fitting within and against the adjacent extremity of the body, a U-shaped band embracing the flange of the head and the extremity of the body and permanently united therewith, said heads corrugated toward their peripheries, and said body provided with longitudinally extended tapering corrugations on each side of the middle of the body forming a plain bilge between the inner extremities of said corrugations, substantially as set forth. 4th. In a barrel or package, a body or shell formed with sheet metal having two of its edges united, said body provided with a series of longitudinal tapering corrugations on each side the middle of the body deepening from near the middle in opposite directions toward the extremities of the body forming a plain bilge at the middle of the body, and in combination therewith a rim  $F^2$  secured in said body, the bung engaged in said rim, substantially as set forth. 5th. In a barrel or package, a body or shell formed of sheet metal corrugated longitudinally toward its extremities, a rim  $F^1$ , bevelled from its edges toward the centre and provided with attaching arms or wings, and a plug  $F$  formed of wood and pressed at one end to a tapering form engageable in said rim, substantially as set forth. 6th. In a barrel or package, a body formed of sheet metal having two of its edges united, said body provided with a series of longitudinal tapering corrugations deepening gradually from near the middle of the body toward the extremities thereof, thereby contracting the diameter of the body at its extremities and forming a bilge at the middle of the body, said longitudinal corrugations terminating at each side the middle of the body, substantially as set forth.

**No. 48,959. Fodder-Receiptacle. (Receptacle à fourrage.)**



William Clinton Caldwell, Fremont, Ohio, and Fred Jared Cook, Fowlerville, Michigan, all in the U. S. A., 7th May, 1895; 6 years.

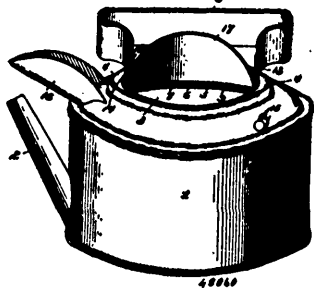
*Claim.*—The combination with a fodder-receptacle whose lower portion has an inverted frusto conical shape, of a follower or cover fitting within, and movable up and down, the receptacle, said follower or cover having a shape corresponding, or approximately corresponding to the inverted frusto conical portion of the receptacle, and being composed of a single sheet of metal stamped or bent into the shape required to render the follower or cover conformable to the lower inverted frusto conical portion of the receptacle, and being provided with any suitable number of feet passage ways 7, and having portions of the metal displaced in the formation of said passage ways bent downwardly to form flanges, substantially as and for the purpose set forth.

**No. 48,960. Tea Kettle. (Théière.)**

Charles W. Bowker and William H. Clinton both of Clintonville, Wisconsin, U. S. A., 7th May, 1895; 6 years.

*Claim.*—1st. A kettle comprising a body portion provided at its top with an opening, a rotary cover portion pivotally mounted on the body and arranged to swing over said opening, and a swinging handle or bail hingedly mounted at its ends on the rotary portion and adapted to be turned down out of the way when the opening is exposed, said handle or bail enabling the kettle to be carried and the rotary portion to be operated, substantially as described. 2nd. A kettle comprising a body portion provided at its top with an opening, a rotary cover-portion arranged to swing over the opening of the body of the kettle, and a guard or shield carried by the rotary cover-portion in its movements, and adapted to be located at the

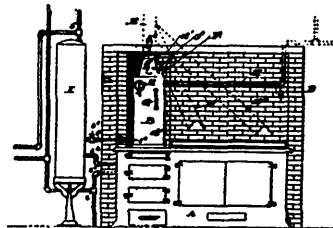
inner side of the opening when the latter is exposed, substantially as described. 3rd. A kettle comprising a body having an opening at the top and provided with an annular way, a stationary disk arranged in the way and provided at one side with a substantially elliptical



opening forming an outer curved supporting piece, a rotary disc centrally pivoted to the stationary disc and provided with a similar opening forming a curved supporting portion and adapted to register with the opening of the stationary disc, said rotary disc being arranged to swing over the opening of the stationary disc to cover the same, and a handle mounted on the rotary disc, substantially as described.

**No. 48,961. Steam Generating System.**

(Générateur à vapeur.)



William H. Hollowell, Morristown, Pennsylvania, U. S. A., 7th May, 1895; 6 years.

*Claim.*—1st. The combination, with a kitchen range having a smoke outlet and a water back, of a kitchen boiler in communication with the water back, a steam generating apparatus located at the smoke outlet, and connections between the kitchen boiler and the steam generating apparatus, whereby the latter is filled with hot water from the kitchen boiler, substantially as and for the purpose described. 2nd. The combination, with a kitchen range having a smoke outlet, of a steam boiler arranged to fit over the smoke outlet and provided with tubes forming flues for conducting the smoke from the range to the chimney, substantially as described. 3rd. The combination, with a kitchen range having a smoke outlet, of a steam boiler arranged to fit over the smoke outlet, and provided with tubes forming flues for conducting the smoke from the range to the chimney, and a smoke pipe interchangeable with the boiler, substantially as and for the purpose described. 4th. The combination, with a kitchen range having a smoke outlet, and a boiler provided with a ring arranged to fit into the smoke outlet, said boiler having tubes forming flues connecting the range and chimney, of a smoke pipe having an annular ring arranged to enter the smoke outlet, whereby the smoke pipe and boiler are interchangeable, substantially as and for the purpose described. 5th. The combination, with a kitchen range having a smoke outlet and a water back, of a kitchen boiler connected to the water back, a steam boiler arranged over the smoke outlet and provided with tubes forming flues for conducting the smoke from the range to the chimney, connections provided with a valve and couplings between the kitchen boiler and steam boiler, and a smoke pipe arranged to fit over the smoke outlet, and interchangeable with the steam boiler, substantially as and for the purpose set forth.

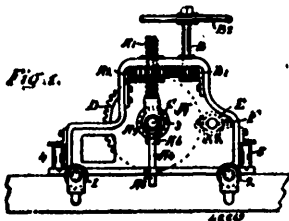
**No. 48,962. Steam Power Rail Bending Machine.**

(Appareil à vapeur pour plier les rails de chemin de fer.)

George Edward Smith, Bridgetown, Ontario, Canada, 7th May, 1895; 6 years.

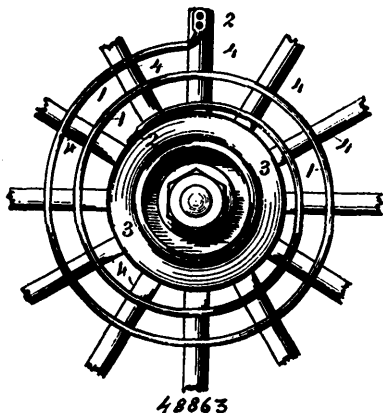
*Claim.*—1st. In combination with the non-adjustable rollers, the

vertically adjustable feed roller for giving the required bend to the rail, a gear secured to the shaft of said feed roller, and a pinion engaging with said gear and secured upon the driving shaft, sub-



stantially as set forth. 2nd. The described means whereby the required bend is given to the rail, consisting of the combination of two rollers supported in fixed bearings, the vertically adjustable roller and a socket supporting the same, a vertical screw connected with said socket, and passing through a gear which actuates the screw, and a pinion for actuating said gear, all substantially as set forth. 3rd. In a rail bending machine, a shaft carrying an adjustable feed roller, one end of which shaft is supported in a vertically adjustable socket carried on the end of a screw, and the other end of which is supported in a block adapted to slide vertically.

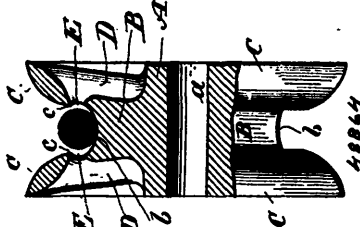
**No. 48,663. Device for Holding Horses.**  
(Appareil pour tenir les chevaux.)



Moses Moyer, Toronto, Ontario, Canada, 7th May, 1885; 6 years.

*Claim.*—1st. A vehicle wheel having a spiral secured thereon by its inner and outer ends and encircling the hub, substantially as and for the purpose herein set forth. 2nd. A spiral made of any suitable material in the manner above set forth to be attached to the vehicle wheel, substantially as set forth.

**No. 48,664. Ice Cutting Trolley.**  
(Trollees à couper la glace.)

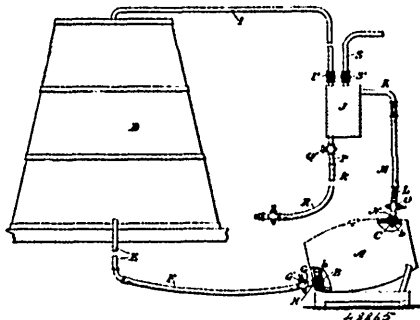


Robert Wellington Thompson, Cleveland, Ohio, U.S.A., 7th May, 1885; 6 years.

*Claim.*—1st. In a combined trolley wheel and wire stripper, the

combination of a hub provided with a central disc grooved on its edges, peripheral rings secured by radial arms to the disc and hub at either side of the disc but separated therefrom by annular openings, and cutting inner edges integral with the rings, substantially as described. 2nd. In a combined trolley and wire stripper, the combination of a centrally perforated hub provided with a grooved disc, and concentric peripheral rings completing the sides of the groove, substantially as described. 3rd. In a trolley wheel, the combination of a hub provided with a central disc grooved to conform to the shape of the bottom of the trolley V-shaped groove, concentric peripheral rings of flattened elliptical section diagonally placed to form the sides of the V-shaped groove, but separated from the bottom by annular openings, and radial arms, connecting the said rings with the central disc and hub, substantially as described. 4th. In a trolley wheel, the combination with a hub and grooved disc, of concentric rings forming the sides of the groove provided with annular cutting edges, substantially as described.

**No. 48,665. Apparatus for Macking Liquids.**  
(Appareil pour le soutirage des liquides.)

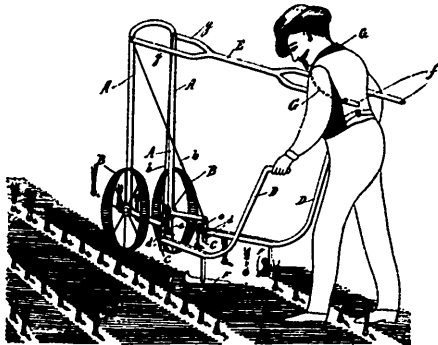


William Cunningham Savage, New York, State of New York, U.S.A., 7th May, 1885; 6 years.

*Claim.*—1st. The combination with a supply vessel for liquid and a barrel or other package having a tap-valve and a vent-valve located at opposite points, and each being a feature of the barrel or package and each having a gate to be opened or closed by connection therewith of a coupling-piece or other key, of a delivery-pipe from said supply-vessel, a coupling-piece to connect said pipe to said tap-valve, a cut-off for said coupling-piece, a pipe to receive and conduct gas or air to or from the barrel, a coupling-piece to connect the gas-pipe to said vent-valve and a cut-off valve for said last-named coupling-piece, substantially as shown and described. 2nd. The combination with a supply-vessel for liquid and a barrel or other package having a tap-valve and a vent-valve located at opposite points and each being a feature of the barrel or package and each having a gate to be opened or closed by connection therewith of a coupling-piece or other key, of a delivery-pipe from said supply-vessel, a coupling-piece to connect said pipe to said tap-valve, a cut-off for said coupling-piece, a pipe to conduct gas or air between the barrel and the source of supply of the gas or air, a coupling-piece to connect the return pipe to said vent-valve, and a cut-off valve for said last named coupling-piece, substantially as shown and described. 3rd. The combination with a supply-vessel for liquid and a barrel or other package having a tap-valve and a vent-valve located at opposite points and each being a feature of the barrel or package and each having a gate to be opened or closed by connection therewith of a coupling-piece or other key, of a delivery-pipe from said supply-vessel, a coupling-piece to connect said pipe to said tap-valve, a cut-off valve for said coupling-piece, a pipe to conduct gas or air between the barrel and the source of supply of the gas or air, a coupling-piece to connect the return pipe to the vent-valve, a cut-off valve for said coupling-piece, and a trap-tank interposed in said return pipe, substantially as shown and described. 4th. The combination with a supply-vessel for liquid and a barrel or other package having a tap-valve and a vent-valve located at opposite points and each being a feature of the barrel or package and each having a gate to be opened or closed by connection therewith of a coupling-piece or other key, of a delivery-pipe from said supply-vessel, a coupling-piece to connect said pipe to said tap-valve, a cut-off valve for said coupling-piece, a pipe to conduct gas or air between the barrel and the source of supply of the gas or air, a coupling-piece to connect the return pipe to the vent-valve, a cut-off valve for said coupling-piece, a trap-tank interposed in said return pipe, a delivery-pipe from said trap-tank, a coupling-piece adapted for connection to the tap-valve of a barrel, and a cut-off in said last named delivery pipe, substantially as shown and described.



**No. 48,866. Power Attachment for Weeding Machines, Etc. (Attache pour sarcelures, etc)**

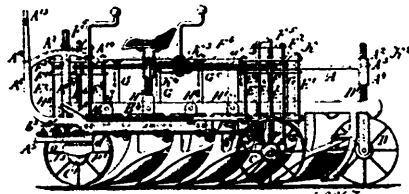


48866

Robert Garrett Harvey Dillon, Long Point, Qu.-bec, Canada, 7th May, 1885; 6 years.

*Claim.*—An attachment for weeding and kindred machines as propelling device, having a vertical arch A made in one with the framework of said machines or firmly attached to the same and strengthened by braces B, C, and to which arch is articulated the shaft E, provided with the collar strap (F) fastened to its branches f, f, for assisting the man in propelling the machine, all in combination, substantially as and for the purpose set forth.

**No. 48,867. Plough. (Charrue.)**



48867

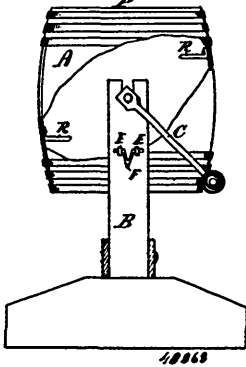
Marinus Weber, New York, State of New York, U.S.A., 7th May, 1885; 6 years.

*Claim.*—1st. A gang plough consisting of a main frame, a movable share supporting frame carrying two or more shares and being provided with a half circular platform, said movable frame being pivoted to the main frame so that it can be shifted on the pivots in its own horizontal plane, two principal wheels on the movable frame, a steering wheel attached to the main frame and a draft, substantially as described. 2nd. In a gang plough provided with two or more shares, a movable share supporting frame consisting of two parallel long bars and two parallel short bars being pivoted together and a half circular platform, said movable frame being pivoted to the main frame so that it is shiftable on the pivots in its own horizontal plane, and a cog-wheel engaging the teeth of the platform and being provided with a shaft forming a crank handle at the top, substantially as described and for the purpose set forth. 3rd. A plough share to be used in single-share and gang ploughs and consisting of two share stocks with beam and weight cast on the rear of the beam, a downward extending perforated arm near the front end of the beam for connecting with the draft, a share plate between the stocks and a device for locking the plate when in the adjusted position, the lower end of the front share beam forming the collar and the stocks being provided with a strengthening cross-bar integral therewith which is shaped so that the share plate can be shifted to the right or left on the share stock without lifting the share, substantially as described. 4th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, the movable frame being pivoted to the main frame so that it is shiftable on the pivots in its own horizontal plane, and a cog-wheel supported by the main frame, and having a shaft forming a crank handle on the top and engaging the teeth of the platform, substantially as described and for the purpose set forth. 5th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, the movable frame being pivoted to the main frame so that it is shiftable on the pivots in its own horizontal plane, a cog-wheel forming a crank handle on

the top and engaging the teeth of the platform and two wheels attached to the movable frame, substantially as described and for the purpose set forth. 6th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, the movable frame being pivoted to the main frame so that it is shiftable on the pivots in its own horizontal plane, a cog-wheel supported by the main frame and having a shaft forming a crank handle on the top and engaging the teeth of the platform and the shares attached to the front main bar of the movable frame, substantially as described and for the purpose set forth. 7th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front and elongated side bars with two wheels attached to the ends of the elongated bars, the movable frame being pivoted to the main frame so that it is shiftable on the pivots in its own horizontal plane, a cog-wheel supported by the main frame and engaging the teeth of the platform and a steering wheel supported between the front ends of the main frame, substantially as described. 8th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front and two wheels attached to the side bars, and ears or lugs with jaws fixed to the front main bar of the movable frame, substantially as described. 9th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, and two wheels attached to the side bars, the front main bar being provided with ears or lugs with jaws, in which the share-beams are pivoted, and the shares, substantially as described. 10th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front and two wheels attached to the side bars, the lugs with jaws in the front main bar to which the shares are pivoted and the share-guidings in the rear main bar, substantially as described. 11th. In a gang plough, the combination with a movable share supporting frame, of a special frame fastened to the central guiding and the set supporting rod, a shaft with crank handle, cog-wheels, cog-wheels on threaded rods above the three wheels of the plough and a continuous chain running over the cog-wheels, substantially as described and for the purpose set forth. 12th. In a gang plough, the combination with a movable frame of downward extensions on the front main bar, a wire rope fixed to the downward extensions, two loose bars in the front between the divided frame, and rollers between the loose bars and on the front downward portion of the share-beams, substantially as described and for the purpose set forth. 13th. In a gang plough, the combination of a wheel attached to the movable frame with a cast-iron piece on the axle, two side rods attached to the piece on the axle and supported by cross-bars near and at the top, and a threaded central rod with screw box between the cross-bars, and crank handle at the top for the purpose of raising or lowering each wheel independently, substantially as described. 14th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, a cog-wheel with a shaft and crank handle engaging the teeth of the platform, two wheels attached to the side bars, the lugs with jaws and device for raising and lowering each wheel independently, substantially as described. 15th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, a cog-wheel with shaft and crank handle engaging the teeth of the platform, two wheels attached to the side bars, the lugs with jaws, and a device for raising and lowering the whole frame work, substantially as described. 16th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, a cog-wheel with shaft and crank handle engaging the teeth of the platform, two wheels attached to the side bars, the lugs with jaws, the device for raising and lowering the whole frame work, a device for equalizing the movement of the shares in the ground and a draft, substantially as described. 17th. In a gang plough, the combination with a main frame of a movable share supporting frame with toothed platform in the front, a cog-wheel with shaft and crank handle engaging the teeth of the platform, two wheels attached to the side bars, the lugs with jaws, the device for raising and lowering the whole frame work, a device for equalizing the movement of the shares in the ground and a draft, substantially as described. 18th. In a gang plough, the combination with a movable frame of the share-beams, the shares are fastened between the share stocks so that they can be shifted to the right or left of the share stock without lifting the shares, the shares being pivoted to lugs on the front main bar and move in guidings on the rear bar, substantially as described. 19th. In a gang plough the combination with a movable share supporting frame of a parallel main frame being bent up in the front and raising rectangularly behind the shares and extending rectangularly rearwards and the steering wheel, substantially as described. 20th. In a gang plough the combination with a movable share supporting frame of a main frame branching out in the front, raising the wheel, substantially as described. 21st. In a gang plough a steering wheel in the front supported in a fork shaped frame in combination with a threaded front standard, a wheel running on the threaded front standard, a block through which a threaded shaft runs which is supported between the ends of the main frame, a wheel on this shaft,

a double perforated segment between the block with shackle lifting device attached thereto, a lever on the top extending rearward, and attachments connecting with the draft, substantially as described and for this purpose set forth.

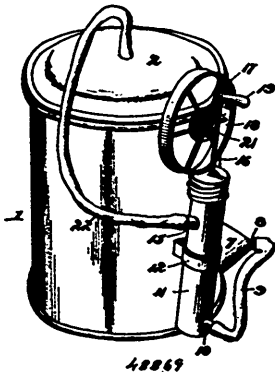
**No. 48,868. Churn. (Baratte.)**



George Branun Dowsell, Hamilton, Ontario, Canada, 7th May, 1885; 6 years.

*Claim.*—1st. In a revolving churn, the combination of a falling link hinged on the centre of the outer face of one of the standards B, on which the trunion arms of the churn A revolves, said link being V-shaped, the arms I I, at their upper ends K, K, turned outward to form axes H, H, working in hinge sockets E, E, fixed on the standard B, the arms I, extending outward and uniting and turned down to form a hooked or connecting end F, adapted to fall into a socket G, formed on the inside of the crank C, which revolves the churn to hold the churn in an upright position, the hinged link thus described when unconnected with the crank C, falling down its connecting end F against the standard B, substantially as set forth. 2nd. In a revolving churn, the combination of the segmental perforated breaks Q and R, fitted inside of the churn, one of which is fitted near the top of the churn, and the other an equal distance from the bottom of the churn on the opposite side, both being fitted on a line parallel with the axis on which the churn rotates, substantially as set forth.

**No. 48,869. Dish Washer. (Lavense de vaisselle.)**

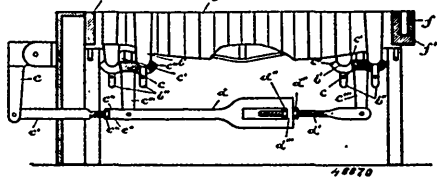


Frank Rowley, West Superior, Wisconsin, U.S.A., 7th May, 1885; 6 years.

*Claim.*—In a dish washer, the combination with the tank having a bottom outlet and a top inlet opening, of an oscillating pump cylinder arranged at one side of the tank and having its piston-rod or stem extended thereabove, a circular attaching clamp 12, embracing the cylinder at an intermediate point, a bolt 13, detachably and pivotally connecting said clamp 12, to the tank, the nut of said bolt 13, being arranged inside of the tank, an operating wheel having a crank pin connected to said piston rod or stem, a beaded journal bolt 21, passed through the hub of said wheel and detachably bolted

to one side of the tank, the nut of said bolt 21, being arranged inside of the tank, and the pipes connected with the pump cylinder and the outlet and inlet openings of the tank, substantially as set forth.

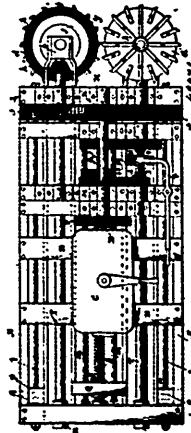
**No. 48,870. Furnace Grate. (Grille de fournaise.)**



Edward Gurney, Toronto, Ontario, assignee of Henry Truesdell, Hawarden, Iowa, U.S.A., 7th May, 1885; 6 years.

*Claim.*—1st. The combination of a frame, a rigid grate-bar connecting its end bars, a section of movable grate-bars supported on each side of and flush with said rigid grate-bar, rock shafts having bearings in the frame and the rigid grate-bar and connected to the movable grate-bars, and means for rocking said rock shafts, substantially as described. 2nd. A cast-iron grate-bar provided with integral depending supporting lugs and wrought metal pins cast in and depending from said supporting lugs, substantially as described. 3rd. The combination of a frame, rock shafts journaled therein and provided with lateral supporting arms and operating arms, grate-bars supported on said lateral arms, a connecting rod between the operating arms, said rod being capable of being shortened or lengthened and means for operating the rock shafts, substantially as described. 4th. The combination of a grate frame, rock shafts provided with alternating lateral arms and also operating arms, as at C<sup>11</sup>, a rod d pivotally connecting arms C<sup>11</sup>, one of its ends being connected to one of said arms C<sup>11</sup> by a screw connection, an operating lever, an adjustable connection between rod d and the operating lever, and grate-bars supported on the lateral arms, substantially as described. 5th. The combination of a frame, two sets of bars adapted to move alternately in vertical planes, a stationary coupling bar having journal bearings and rigidly attached at its ends to the frame and interposed between the two sets of grate-bars rock shafts mounted in the journal bearings of the coupling-bar and having means for alternately moving the grate-bars vertically, and means for operating the rock shafts, substantially as described.

**No. 48,871. Mining Machine. (Machine de mine.)**

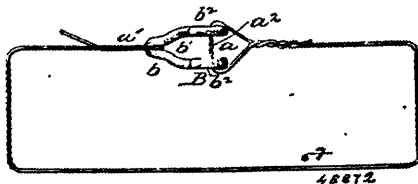


Joseph Boland, George William Fritz, Hugh Francis Doris and John Jonathan McCloskey, all of Pittsburg, Pennsylvania, U.S.A., 7th May, 1885; 6 years.

*Claim.*—1st. A mining machine, comprising a cutter having a straight outer cutting surface, a cutter having a conical outer cutting surface, and set obliquely to said straight faced cutter and moving therewith, and a driving shaft driving one of said cutters, substantially as specified. 2nd. A mining machine, comprising a lower cutter having a straight under cutting surface, an upper cutter having a conical upper cutting surface, said conical cutter set

obliquely to the straight cutter and meshing therewith, a carriage or frame for said cutters traveling in a plane parallel with the straight cutting surface of the straight cutter, and a shaft carried by said frame engaging and driving one of said cutters, all combined to operate as and for the purpose described.

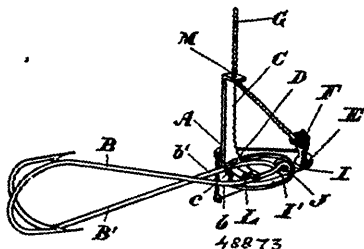
**No. 44,872. Bale Tie. (Cercle de ballot.)**



William A. Kilmer, administrator of A. Kilmer, deceased, Newburgh, New York, U.S.A., 7th May, 1895; 6 years.

*Claim.*—1st. A bale tie consisting of a band wire and a clasp of larger size than the band wire, the clasp having a pinching and gripping angle, as set forth. 2nd. A bale tie having a wire bale band and a clasp made of larger round wire than that of which the bale band is made, the clasp having a pinching and gripping angle, as set forth.

**No. 48,973. Fish Hooks. (Hameçon.)**



Frederick Cole Davies, Toronto, administrator of Henry Mills late of Orillia, both of Ontario, Canada, 7th May, 1895; 6 years.

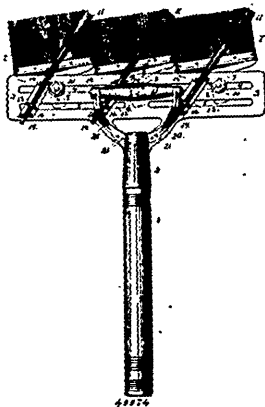
*Claim.*—1st. In a trap hook the combination of a works case, two hooks pivotally connected within the works case, and means for moving the hooks in opposite directions, substantially as specified. 2nd. In a trap hook the combination of the works case, the hooks, an eye at one end of the shank of each hook, a pin passing through the said eyes to pivotally connect together the said hooks, a spring bearing upon the shank of each of said hooks, and an operating lever arranged to move the hooks in opposite directions, substantially as specified. 3rd. In a trap hook the combination of the works case, the hooks, an eye formed at the end of the shank of each hook, a pin passing through said eyes to pivotally hold together the said hooks, the shank of each of said hooks curved at that end contiguous to the said eyes, a U-shaped spring arranged to bear upon the curved portion of each of said shanks, an operating lever pivoted within the works case provided with two lugs arranged to bear against the shanks and move the fish hooks in opposite directions, said spring arranged to return and hold the said fish hooks in their normal position, substantially as specified.

**No. 44,874. Gang-brush. (Pinceau mécanique.)**

Swell Aldrich Brooks, Strykersville, New York, U.S.A., 8th May, 1895; 6 years.

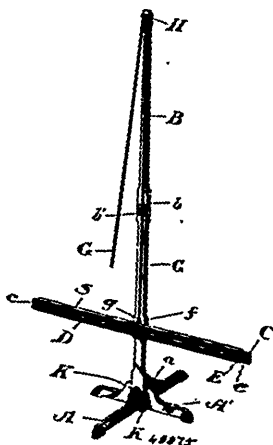
*Claim.*—1st. A gang-brush consisting of two or more brushes adjustably secured to a frame, and adapted to simultaneously paint two or more surfaces, lying in parallel planes, and two or more smaller or tool brushes adjustably secured on the same frame, and adapted to simultaneously paint two or more edges or surfaces perpendicular to the first surfaces or planes. 2nd. A securing-frame for gang-brushes, consisting of a single metallic plate adapted to receive one or more brushes, to simultaneously paint one or more surfaces lying in parallel planes upon one side, and having securing clips adjustably secured to its opposite side for the reception of one or more smaller or tool brushes, the whole arranged to be operated from handles fitted to the frame, substantially as and for the purpose stated. 3rd. The herein described securing-frame for gang-brushes consisting essentially of a frame provided with openings for adjustably securing the brushes in place and provided with two rigid operating handles, one projecting from the frame and the other in close proximity to the brushes secured in said frame, substan-

tially as shown. 4th. The herein described securing frame for gang-brushes, consisting essentially of a rectangular frame provided with elongated openings for adjustably securing the larger brushes to one side of said frame, and adjustably securing retaining clips to its opposite side for the reception of smaller or tool brushes, substantially as and for the purpose stated. 5th. In a securing-frame for



gang-brushes, a clip adapted to slide in slots arranged in said frame, said clip having recessed edges for the reception of a smaller or tool brush handle, and a screw threaded hook arranged to secure the brush handle and clip to the frame, substantially as shown. 6th. A gang-brush, consisting of two or more brushes all adapted to paint in the same plane, adjustably secured in a single frame, said frame having two handles, one projecting from the brushes, and the second projecting towards and in close proximity to the brushes. 7th. In a joint brush a second handle secured so as to be in close proximity to the bristle of said brush, and being at right angles to said brush or bristles. 8th. In a frame or handle for one or more joint brushes, a second handle secured to the said frame or first handle and lying at right angles thereto.

**No. 44,875. Map Stand. (Parte-carte géographique.)**



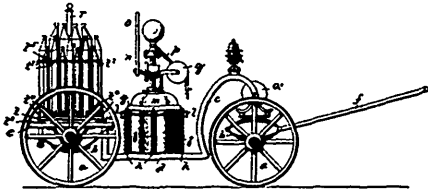
Walter Lyon Sinton, Victoria, British Columbia, Canada, 8th May, 1895; 6 years.

*Claim.*—1st. A map or chart stand in which the map or chart when rolled is located near the base of the standard, suitable means being provided for hoisting the top of the chart towards the top of the standard in order to display the chart, substantially as described and specified. 2nd. A map or chart stand in which the map or chart when rolled is located on a roller carried by a transverse holder near the base of a standard which is adapted to fold, means being



liquid-vending apparatus, the combination of a reservoir 15, a measuring cup connected therewith, a discharge pipe for the measuring cup, means to control the supply and discharge of this latter coin-actuated mechanism controlling the operation of the means before mentioned, a coin-chute accessible from the outside, and communicating with the mechanism last mentioned, and a coin-controlled handle 23, having an extension 40 cut out and shaped in a manner to normally close the exterior opening of the discharge-pipe from the measuring cup. 36th. In a coin-controlled liquid-vending apparatus, the combination of a reservoir 15, a measuring cup connected therewith, a vent tube 42, and a discharge-pipe for the measuring cup, means to control the supply and discharge of this latter coin-actuated mechanism controlling the operation of the means before mentioned, a coin-chute accessible from the outside, and communicating with the mechanism last mentioned, a gage 43, to show the stage of the contents of the reservoir 15, and consisting substantially of the upper part of the vent tube aforesaid mentioned, which is bent in the manner shown, and an inspection opening 44, in the outer housing. 16th. In a coin-controlled liquid-vending apparatus, the combination of a reservoir 15, a measuring cup connected therewith, a discharge-pipe for the measuring cup, a valve actuated by a rod 22 to control the supply and discharge of this measuring cup, coin-actuated mechanism controlling the operation of the valve and valve-rod before mentioned, a coin-chute accessible from the outside, and communicating with the mechanism last-mentioned, a registering attachment 45, secured within suitable proximity of rod 23, and a projection 46, on this latter, capable of actuating the registering attachment with each operation of rod 22. 17th. In a coin-controlled liquid vending apparatus, the combination of a reservoir 15, an ice-chamber below it, a measuring cup 17, in the lowest part of the latter, a supply-pipe and cooling coil 18, traversing the ice-chamber and connecting the measuring cup with the reservoir, a discharge pipe from the measuring cup, located below the latter and the cooling coil, means to control supply and discharge of the measuring-cup, coin-actuated mechanism controlling the operation of the means before mentioned and a coin-chute accessible from the outside and communicating with the mechanism last-mentioned.

**No. 48,978. Fire Extinguisher. (Extincteur d'incendie.)**



Samuel M. Stevens, Manchester, New Hampshire, U. S. A., 8th May, 1895; 6 years.

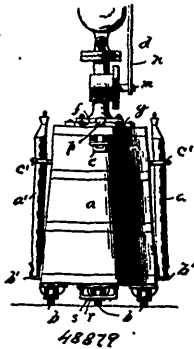
*Claim.*—1st. A fire extinguishing apparatus comprising the vehicle having the depressed platform between the wheels, the elevated platform over the rear axle, the tank removably arranged on said depressed platform and having the hand pump and hose with the reel therefor, and a rotary turret on the rear elevated platform provided with the removable series of hand fire extinguishing tubes, substantially as described. 2nd. The fire extinguishing apparatus comprising a vehicle, the removable tank carrier resting thereon, and substantially as described for detachably locking said carrier having a top hand pump and hose reel, substantially as described. 3rd. A fire extinguishing apparatus comprising a vehicle, the tank thereon having a hand pump on its upper end with a discharge hose therefrom and a revolvable turret provided with removable tubes containing fire extinguishing liquid and having the tapered nozzles with removable stoppers. 4th. A fire extinguishing apparatus comprising the vehicle, a removable tank holder resting thereon, chains at their lower ends secured to the vehicle around the tank holder and at their upper ends adapted to be secured to the tank holder, nozzles in which the tank holder is pivoted, a tank in the tank holder having a hand pump on its upper ends, substantially as described. 5th. The fire extinguishing apparatus comprising a vehicle having the vertical support secured thereto, the horizontal table turning on the lower portion of said support and having the upper disc secured thereto and also turning on the support, flexible sockets on the upper side of the table to receive the lower ends of fire extinguishing tubes, holes in the upper disk having packing and a spring holder around the edge of the upper disc.

**No. 48,979. Fire Extinguisher. (Extincteur d'incendie.)**

Samuel M. Stevens, Manchester, New Hampshire, U. S. A., 8th May, 1895; 6 years.

*Claim.*—1st. A tank mounted on rollers and provided with removable hand fire extinguishing tubes on its exterior, and with a hand pump and discharge hose on its upper end. 2nd. A portable fire

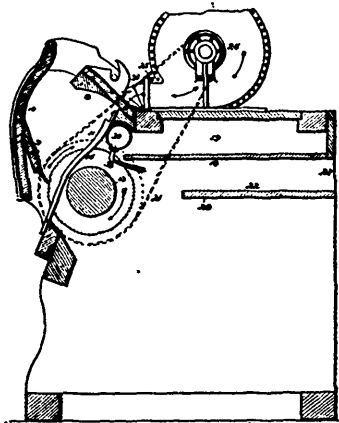
extinguisher comprising the tank having three rollers on its bottom arranged to rotate in parallel planes, foot operated means, substantially as shown, to lock the tank to the floor, and the hand pump on the upper end of the tank provided with the discharge. 3rd. A tank provided with bottom rollers, a hand pump on its upper end having a lateral shaft with the upwardly extending swinging operating arm, and the discharge hose so that the operator can easily



work the pump and direct the hose. 4th. A portable tank having the plate secured on its upper end with the flange depending into and held in the tank top, a seat in the upper surface in said plate, a soft metal suction pipe extending into the tank and through said plate with its upper end upset into said seat, and the pump body secured to said plate so that said upset end of the soft metal pipe forms a bearing and packing, substantially as described. 5th. A portable fire extinguishing tank having a hand pump and a spring foot stirrup arranged to be forced against the floor to lock the tank by the foot of the operator. 6th. The fire extinguishing apparatus comprising the portable tank having the hand pump on its upper end, supporting rollers at its bottom, and springs carrying a foot stirrup at their free ends provided with points and arranged at the rear side of the tank, for the purpose set forth. 7th. A portable fire extinguishing apparatus comprising a tank mounted on rollers and provided with a hand pump, and a bracket at the lower portion of the exterior of the tank to receive the lower ends of the hand fire extinguishing tubes, and the spring arm secured to the upper portion of the exterior of the tank to hold the upper ends of said tubes away from the top of the tank, as set forth.

**No. 48,980. Cotton Gining Apparatus.**

(Appareil d'égrenage du coton.)

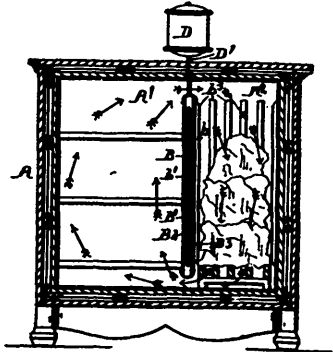


Robert King, Mansfield, Louisiana, U. S. A., 8th May, 1895; 6 years.

*Claim.*—1st. In a cotton gin, the combination with the gin-saws, of means for subjecting the lint-cotton upon the saws to a draft of air, whereby the lint-cotton will be removed from the gin-saws independently of brushes. 2nd. In a cotton-gin, the combination with the gin-saws, of draft-generating means for producing a draft

of air, the said draft of air moving outwardly from between the gin-saws against the lint-cotton thereon, whereby the lint-cotton will be removed from the gin-saws independently of brushes. 3rd. In a cotton-gin, the combination with the gin-saws, of draft-creating appliances for producing a blast of air, means for conducting the blast of air to points between the gin-saws, and devices for discharging the same outwardly against the lint. 4th. The combination with a cotton-gin provided with gin-saws, of a fan or blower, a pipe conducting the air from said fan or blower, and nozzles connected with said pipe and conducting to points between the gin-saws. 5th. The combination with a cotton-gin provided with gin-saws, of a fan or blower, a pipe conducting the air from said fan or blower, and nozzles connected with said pipe and conducting to points between the gin-saws, the said nozzles having their ends bent at an angle to their upper portions. 6th. The combination with a cotton-gin provided with gin-saws, of a fan or blower, a pipe conducting the air from said fan or blower, and nozzles connected with said pipe and conducting to points between the gin-saws, the said nozzles having their ends bent at an angle with their upper portions, and being flattened or crimped at their ends. 7th. In a cotton-gin, the combination with the gin-saws, of draft generating means for creating a draft of air, and a cotton-flue adjacent to the gin-saws, whereby the lint upon the gin-saws will be removed therefrom by said draft of air and carried into and along said cotton-flue. 8th. In a cotton-gin the combination with the gin-saws, of draft-creating appliances for producing a blast of air, means for conducting the blast of air to points between the gin-saws, devices for discharging the same outwardly against the lint, and a cotton-flue into and along which the lint is carried by said draft of air. 9th. In a cotton-gin, the combination with the gin-saws, of draft-creating appliances for producing a blast of air, means for conducting the blast of air to points below the gin-saws, devices for discharging the same outwardly against the lint, and a cotton-flue into and along which the lint is carried by said draft of air, the said cotton-flue being separated from the gin-saws by an appreciable intervening space. 10th. In a cotton-gin provided with gin-saws, the combination of a sand chamber having an opening adjacent to the upper part of the gin-saws, draft-creating and conducting devices adapted to subject the lint-cotton on the gin-saws to a draft of air moving outwardly against said lint-cotton, and a cotton-flue into and along which the lint-cotton will be carried by said draft of air. 11th. In a cotton-gin provided with gin-saws, the combination of a sand chamber having an opening adjacent to the upper part of the gin-saws, draft-creating and conducting devices adapted to subject the lint-cotton on the gin-saws to a draft of air moving outwardly against said lint-cotton, and a cotton-flue into and along which the lint-cotton will be carried by said draft of air, the inner end of said cotton-flue being separated from the gin-saws by an appreciable space. 12th. In a cotton-gin provided with gin-saws, the combination of a draft-creating appliance, a blast-pipe conducting from said draft-creating appliance to the interior of the gin, nozzles extending from said blast-pipe to points between the gin-saws, a sand-chamber having an opening adjacent to the upper part of the gin-saws, and a cotton-flue for conducting the lint-cotton out of the gin, the inner end of said cotton-flue being separated by appreciable space from the gin-saws. 13th. In a cotton-ginning apparatus provided with means for separating the lint from the seeds, the combination of draft-creating devices for producing a draft of air, a conducting pipe for conveying said draft of air to points between the gin-saws, and adjusting devices for regulating the position of said pipe relatively to the gin-saws.

**No. 48,881. Water Cooler and Refrigerator.**  
(Refrigerateur pour l'eau et refrigerateur.)

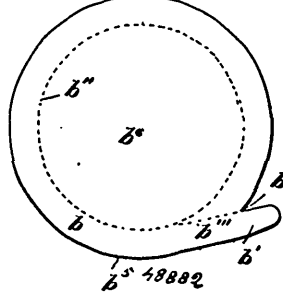


Francis R. Beal, Northville, Michigan, U.S.A., 8th May, 1895; 6 years.

Claim.—1st. A combined water cooler and refrigerator, having in

combination a provision chamber, an ice chamber communicating with the provision chamber at the top and bottom thereof, a water cooler located between said chambers constructed to form a free passage for the air coming into the ice chamber from the provision chamber to pass between the ice and the cooler, and a supply reservoir or tank communicating with said cooler, substantially as described. 2nd. In a combined water cooler and refrigerator, an inclosing case A, forming an interior chamber, and a water cooler within said chamber constituting a partition dividing said interior chamber into an ice receiving chamber and a provision chamber, said water cooler spaced from the top and bottom of said interior chamber, one face of the cooler directly exposed to the ice receiving apartment and the opposite face of the cooler directly exposed to the provision apartment, substantially as set forth. 3rd. In a combined water cooler and refrigerator, a water cooling chamber with vertical sides joined to form a water-tight compartment subdivided into two compartments by a vertical partition therein, said partition shortened at both top and bottom to allow free circulation between the two compartments, substantially as set forth.

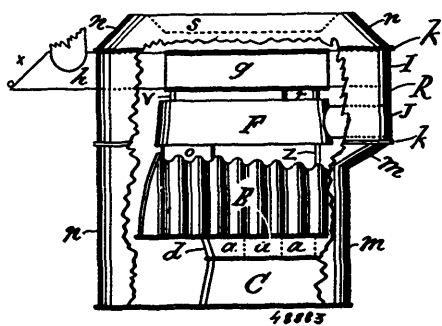
**No. 48,882. Hermetically Sealed Sheet-Metal Can.**  
(Boite metallique scellee hermetiquement.)



Gorge William Clerihew, Peterborough, Ontario, Canada, 8th May, 1895; 6 years.

Claim.—A hermetically sealed sheet-metal can, consisting of a body of any desired shape or cross-section and a top having a crimped rim or flange weakened at the angle or line at which it is bent down to overlap the body, and a tangential or obliquely projecting lug or finger-piece b', having a weakened line extending from the acute angle between its heel and the lower edge of the rim in an oblique direction parallel to the lug to the weakened line at the upper edge, substantially as set forth.

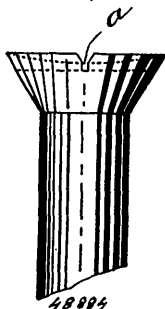
**No. 48,883. Domestic Heating Furnace.**  
(Fornaise à air chaud.)



John Albert Crossman and John Alfred Laws, both of Amherst, Nova Scotia, Canada, 8th May, 1895; 6 years.

Claim.—1st. The combination in a domestic heating furnace of the ash-pit C, with the fire-pot d, and the body E, substantially as and for the purpose hereinbefore set forth. 2nd. In a domestic heating furnace, the combination of the body E, with the radiator F, substantially as and for the purpose hereinbefore set forth. 3rd. In a domestic heating furnace, the radiator F, substantially as and for the purpose hereinbefore set forth.

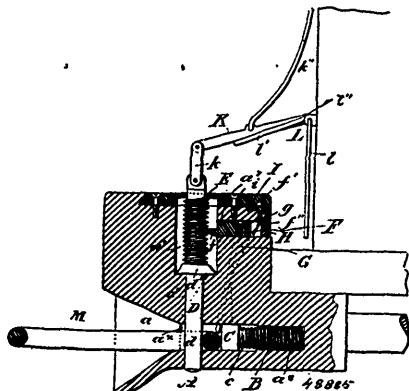
**No. 48,884. Screw-head. (Têtes de vis.)**



Euclide Richard, Montréal, Québec, Canada, 8 mai, 1895; 6 ans.

*Résumé.*—La combinaison, avec une tête de vis dont le dessus est concave, de deux fentes *a*, *a* ou plus, dont les parties *b*, *b* des faces sont taillées suivant, un plan incliné, le tout tel que décrit et pour les fins indiquées.

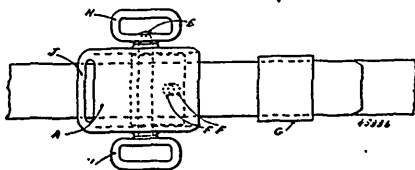
**No. 48,885. Car Coupler. (Attelage de chars.)**



August Frank Shwaddlenak, Dexter, Texas, U.S.A., 9th May, 1895; 6 years.

*Claim.*—In a car coupler, the combination with a draw-head having a link opening, a pin opening intersecting the link opening, the latter being wider in the rear of the pin opening than forward of the same, and a pair of side recesses, of a sliding head located in the wider portion of the link opening, a spring tending to hold the sliding head in its forward position, a pair of lever arms movable in the side recesses and arranged to engage the sliding head, a catch block operated by the lever arms, a spring tending to force the catch block forward into engagement with the coupling pin, and means for raising the coupling pin, substantially as and for the purpose set forth.

**No. 48,886. Harness Buckle. (Boucle de harnais.)**

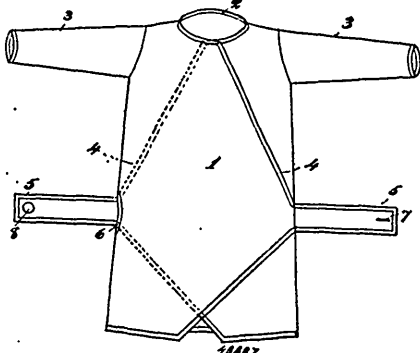


Franklin D. Clark, Racine, Wisconsin, U.S.A., 9th May, 1895; 6 years.

*Claim.*—1st. The combination of circular plate A, with its projecting side pieces, which are provided with holes to receive bolt E, which circular plate A is also provided with tongue F, also eccentric

C which is provided with tongue F, and bolt E which holds circular plate A and eccentric C together, also eyelets H, H, if desired, also eyelets J and K, as shown and described. 2nd. The combination of circular plate A, with its projecting side pieces, eccentric C and bolt E, which bolt E holds circular plate A and eccentric C together, circular plate A being provided with eyelet J, eccentric C being provided with eyelet K and tongue F, bolt E being provided with eyelets H, H, if desired, as shown and described.

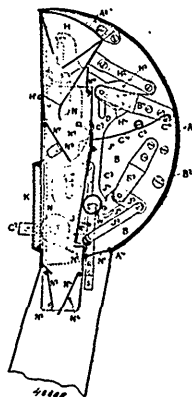
**No. 48,887. Undershirt. (Camisole)**



Lee Rubens, Chicago, Illinois, U.S.A., 9th May, 1895; 6 years.

*Claim.*—1st. As a new article of manufacture, an undershirt comprising a body portion open in front and having a neck and shoulder portion and arms, extensions at the open front portion of the garment extending from the neck portion and the lower end portion of the garment laterally to overlap the front portions of the garment, the end portions of said extensions being of sufficient length to reach around the body of the garment and to be fastened to each other, the body of the garment having an aperture to permit the fastening of the end portions of said extensions, substantially as described. 2nd. As a new article of manufacture, an undershirt for infants, comprising a body portion open in front and having a neck and shoulder portion and arms, extensions at the open front portion of the garment extending from the neck portion and the lower end portion of the garment laterally to overlap the front portions of the garment, and straps or bands connected to the ends thereof and of length to reach the rear portion of the garment and to be there fastened, the body of the garment having an aperture to permit the fastening of the straps or bands, substantially as described.

**No. 48,888. Fare Box. (Boîte à billets.)**

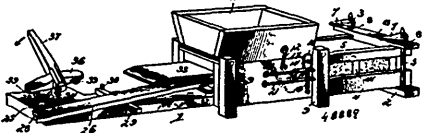


John Evans, Kensington, South Australia, 9th May, 1895; 6 years.

*Claim.*—1st. A fare box provided with a main case, a receiver connected thereto and adapted to be moved into and out of the case, and means for operating the said receiver, substantially as described. 2nd. A fare box provided with a main case, a receiver hinged

thereto and adapted to swing into and out of the case, and means for operating the said receiver, substantially as described. 3rd. A fare box comprising a main case, provided with a receiver hinged thereto and adapted to swing into and out of the case, a verifying window, a hinged flap arranged below the receiver adjacent to the said window, a tube secured to the bottom of the case, a storage receptacle connected to the said tube, a registering apparatus in the main case, an operating lever projecting from the said case, and operative connections between the said lever and the receiver, the registering apparatus and the flap, substantially as described. 4th. A fare box comprising a main case and an inner casing forming therewith a downward channel, a storage receptacle communicating with said channel, a receiver whose lower end is hinged to the casing at the upper end of said channel, a lever projecting from the main case and operatively connected with the said receiver, and a registering apparatus operatively connected with the said lever, substantially as described. 5th. A fare box provided with a registering apparatus and an operating lever, a link pivotally connected with the said lever, and a sliding plate pivotally connected with the said link and operatively connected with the registering apparatus, substantially as described. 6th. A fare box provided with a registering apparatus and an operating lever, a link pivotally connected with the said lever, a sliding plate, operatively connected with the registering apparatus, a pivot connecting the said sliding plate with the said link, and a spring engaging a hook pivoted to the said sliding plate and adapted to return the mechanism to its normal position, substantially as described. 7th. A fare box comprising a main case provided with a channel for the fare or ticket, a hinged flap arranged in the said channel, a link pivotally connected with the flap, a crank lever, one arm whereof is pivotally connected with the link, the crank lever being fulcrumed in the case, a sliding plate operatively connected by a pin with the other arm of the crank lever, another link pivotally connected with the said sliding plate and an operating lever fulcrumed in the case and pivotally connected with the second link, substantially as described. 8th. A fare box, comprising a main case provided with an opening, a receiver hinged to the main case and adapted to swing in and out through the said opening, a link pivoted to the receiver, a crank lever fulcrumed in the case, having one arm pivotally connected by a pin with the other arm of the crank lever, an operating lever likewise fulcrumed in the case and a connection between the sliding plate and the operating lever, substantially as described. 9th. A fare box, comprising a main case provided with a window and a channel for the passage of the fare or ticket, a movable receiver at the upper end of the said passage, a hinged flap located within the said channel adjacent to the window, a registering apparatus arranged in the main case, a lever projecting from the said case and operatively connected with the receiver, the flap, and the registering apparatus, another hinged flap located in the channel above the first named flap, two other hinged flaps located in the channel below the first named flap, a detector valve secured on the outside of the channel, and a storage receptacle located below the channel of the main case and communicating therewith, substantially as described.

**No. 48,890. Hay Press. (Presse à foin.)**

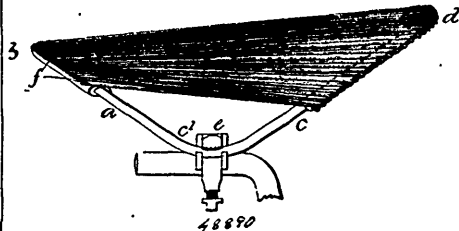


William J. Pearce, Pilot Point, and Albert L. Bennett, Dallas, both of Texas, U.S.A., 9th May, 1895; 6 years.

**Claim.**—1st. In a press, the combination with the opposite side walls having vertical recesses, of the interposed tucker-roll having reduced ends passing through and beyond the recesses, blocks arranged on the tucker-roll, metal rings arranged upon and encircling the blocks and terminating at their lower ends in hooks, and coiled springs connected at their upper ends to the hooks and at their lower ends to the sides of the press, substantially as specified. 2nd. In a baling press, the combination with a baling chamber, a stud arranged beyond the chamber, an arm mounted upon the stud, adapted to swing, and having a longitudinal slot, of a sweep head having a depending pin for engaging against the outer side of the arm, a plunger arranged in the baling chamber, a stem connected pivotally with the plunger and at its outer end having a notch, a stud connected with the plunger stem with the slot of the arm, and a stop arranged at one side of the plunger stem, substantially as specified. 3rd. In a press, the combination with the baling chamber, a stud arranged beyond the same, a slotted arm mounted loosely upon the stud, a bearing-post at one side of the arm, a sweep-head swivelled on the post and having depending roller-carrying pins, and a sweep arranged upon the sweep-head, of a plunger arranged in the press, a stem pivoted to the press and having at its outer end an L-shaped recess, a stud passing through the stem and the slot in the arm, and a stop arranged at one side of the stem, substantially as specified. 4th. In a press, the combination with the baling chamber, a stud

arranged beyond the same, a slotted arm mounted loosely upon the stud, a bearing post at one side of the arm, a sweep-head swivelled on the post and having depending roller carrying pins, and a sweep arranged upon the sweep-head, of a plunger arranged in the press, a stem pivoted to the plunger and having at its outer end an L-shaped recess, a stud passing through the stem and a slot in the arm, a transverse guide-bar arranged under the stem and projecting at one side thereof, and a stop-pin rising from the guide-bar and located in the path of the plunger-stem, substantially as specified.

**No. 48,890. Saddle. (Selle.)**

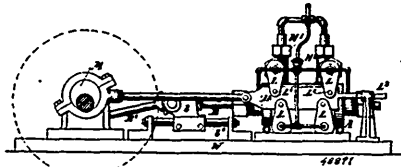


The Climax Manufacturing Company, assignee of John Chappell Wells, both of East Hampton, Connecticut, U.S.A., 9th May, 1895; 6 years.

**Claim.**—1st. The method of constructing a saddle which consists in forming a rigid frame to shape with raised pommel and cantle portions, providing the pommel and cantle with anchoring points for the seat fabric, then stretching across the saddle elastic and flexible coils, two or more lengths being attached simultaneously on opposite sides of, and working toward or from, the centre line of the saddle frame, all substantially as described.—2nd. The method of constructing a saddle which consists in forming a rigid frame to shape with a raised narrow pommel and a broad cantle portion, providing the pommel and cantle with anchoring points for the seat fabric, then stretching across the saddle a continuous elastic and flexible coil of wire, bending around the anchoring points and attaching the coil simultaneously on opposite sides of, and working toward or from, the lengthwise centre line of the saddle, all substantially as described. 3rd. In combination in a saddle, a frame with raised pommel and cantle portions, and a seat suspended therefrom, the seat consisting of a compound elastic and flexible coil of wire, the strands nested together and the coil extending from pommel to cantle and secured thereto, all substantially as described. 4th. In combination in a saddle, a frame with raised cantle and pommel, flexible anchor points secured to the pommel and cantle, and a seat composed of a compound elastic and flexible coil, of strands of wire nested together, in a continuous length stretched back and forth from pommel to cantle and secured to the flexible anchor points which are bent down to secure the seat to the frame, all substantially as described.

**No. 48,891. High Pressure Motor.**

(Moteur à haute pression.)



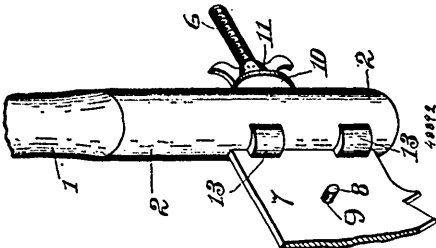
Leon Abbott, junr., Hoboken, New Jersey, assignee of Lewis Boyd White, New York, State of New York, both of the U.S.A., 9th May, 1895; 6 years.

**Claim.**—1st. In a motor to be operated by gas under high pressure, the combination with a reciprocating valve, of a rock shaft for imparting a reciprocating motion to the valve and a sliding plate for operating the rock shaft, substantially as herein shown and described. 2nd. In a motor to be operated by gas under high pressure, the combination with a cylinder and piston therein, of valves for controlling the admission of gas into the cylinder and the exhaust of the spent gas and a reciprocating plate for operating said valves, substantially as herein shown and described. 3rd. In a motor to be operated by gas under high pressure, the combination with a cylinder and piston therein, of valves for controlling the admission of gas under pressure into the cylinder and the exhaust of the spent gas, of a reciprocating plate for operating said valves, a second plate adjustable transversely to the first plate and means for adjusting the



plates in relation to each other and locking them into position, substantially as herein shown and described. 4th. In a motor to be operated by gas under high pressure, the combination with a cylinder and piston, of a reciprocating plate, outlet valves, rock shafts for operating the outlet valves, an arm on each rock shaft, which arms are pivoted to said plate, a second plate having pins or studs sliding in transverse slots in the first of said plates, rock valves for controlling the inlet of the motive fluid to the cylinder, a slotted arm attached to each rock shaft of the inlet valve and pins secured in said second mentioned plate and passing through said slots and means for adjusting the plates relative to each other, substantially as herein shown and described. 5th. In a stuffing box, the combination with a tubular projection, of a chambered bushing screwed in said projection, a gland in said bushing and a nut for forcing the gland inward, substantially as herein shown and described. 6th. 6th. In a stuffing box the combination with a tubular projection, of a bushing screwed into the same, a sleeve in said bushing which sleeve is provided with end discs, packings seating against the outer surface of said end discs and a nut for tightening the packing, substantially as herein shown and described. 7th. In a motor, the combination with a piston composed of two piston plates, a central disc of soft metal between the two piston plates and screws screwed through the piston plate and impinging on the soft metal plates between them, substantially as herein shown and described. 8th. The combination with a shaft having a fixed collar of two piston plates of which one rests against the fixed collar, a soft metal disc between the piston plates, and a nut screwed on the piston rod and bearing against the piston plate, substantially as herein shown and described. 9th. In a motor, the combination with a heating means of heating gas and means for cooling the same and a forcing device for forcing the motive fluid from the cooling device to the heater, substantially as herein shown and described. 10th. In a cooling device for engines operated by gas under high pressure, the combination with a vessel containing the motive fluid, to be used for operating the engine, pipes extending through said vessel and outer surface, substantially as herein shown and described. 11th. In a cooling device for engines operated by gas under high pressure, the combination with a vessel, for containing the motive fluid for operating the engine, of pipes extending through said vessel and an expansion chamber adjacent to said vessel and opening into the same, substantially as herein shown and described. 12th. In a cooling device for engines operated by gas under high pressure, the combination with a vessel, for containing the motive fluid for operating the engine, of pipes extending through said vessel and communicating with chambers to the exterior of said vessel and a pipe extending from said vessel to one of said chambers, substantially as herein shown and described. 13th. The combination with an engine to be operated by gas under high pressure, of a vessel containing the cooled and liquified motive fluid and a coiled pipe surrounding said vessel and connected therewith and means for conducting the exhaust gas from the engine to said coiled pipe, substantially as herein shown and described. 14th. In a motor to be operated by gas under high pressure, the combination with a vessel for containing a quantity of the cooled and liquified motive fluid, of a coiled pipe surrounding said vessel and connected therewith, means for conducting the exhaust gas from the engine into said coiled pipe and a jacket surrounding the coil, substantially as herein shown and described. 15th. The method of operating an engine by means of a gas under high pressure consisting in admitting the gas under high pressure into the engine cylinder, forcing the exhaust gas into a coil in which it expands and whereby the temperature is reduced and the gas is liquified by the back pressure and then heating the gas to raise its pressure before again admitting it into the engine, substantially as herein set forth.

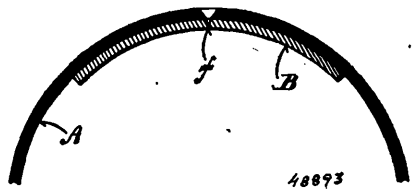
**No. 48,802. Saw Handle. (Manche de scie.)**



John Tars, Fort Bragg, California, U.S.A., 9th May, 1895; 6 years.

*Claim.*—The saw handle, the tube having a slot and an aperture formed in the same plate, the rivets extending through the tube, at an angle to the slot and aperture, and having an arc-shaped head adjacent to the slot upon the outside of the tube, which are engaged by one side of the saw, the coupling screw having a pin extending through the saw, and the thumb screw for securing the parts together, as set forth.

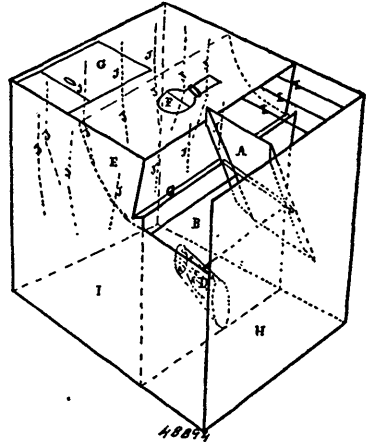
**No. 48,803. Pneumatic Tire for Bicycles. (Bandage pneumatique pour bicyclettes.)**



Al Bertram Shaw, Melford, Massachusetts, U.S.A., 9th May, 1895; 6 years.

*Claim.*—1st. That improvement in the method of making inflatable tubing for pneumatic tires which comprises forming the tube of two plies of elastic material, one of said plies being stretched and the companion ply secured to a face thereof without stretching. 2nd. That improvement in the manufacture of inflatable tubing for pneumatic tires which comprises the covering of a face of said tube when inflated or stretched with an elastic material in its normal condition. 3rd. As a new article of manufacture an inflatable tube for bicycle-tires formed of two plies of elastic material, one ply in its normal condition being cemented to the face of the companion ply when stretched or distended. 4th. The improved tire herein described comprising the distended ply A, and the ply B, secured to a face thereof substantially as and for the purpose set forth. 5th. That improvement in the method of making inflatable tubing for pneumatic tires which comprises turning a rubber tube inside out, stretching said tube lengthwise and laterally and while held in such position cementing a sheet of rubber to a portion or the whole of the surface of said tube, said sheet being in its normal condition, then releasing the tube and again turning it inside out to its first position.

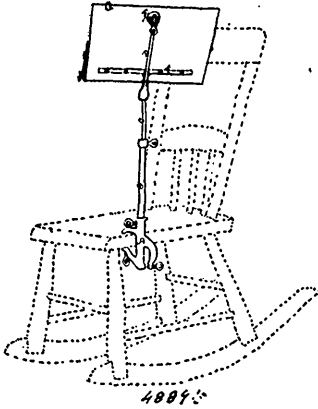
**No. 48,804. Gopher Trap. (Ratière.)**



John McLean, Isaac Reginald Brigham and Edward James, all of Moosemin, North-west Territories, Canada, 9th May, 1895; 6 years.

*Claim.*—1st. In a gopher trap a bait trough with automatic feed and provided with a balanced platform as shown and described for the purpose set forth. 2nd. In a gopher trap the combination of projecting spikes, a main chamber, an exit door, and provided with a bait trough with automatic feed, and a balanced platform as shown and described for the purpose set forth. 3rd. In a gopher trap a tunnel provided with means of preventing a return from main to receiving chamber, a balance platform and feed trough provided with automatic feed as shown and described. 4th. In a gopher trap a main chamber, a receiving chamber, a tunnel, a reserve feed box, an auxiliary platform, a balance platform, and projecting spikes as shown and described for the purpose set forth. 5th. In a gopher trap a main chamber and projecting spikes, a receiving chamber, with tunnel and projecting spikes, a bait trough with automatic feed and an auxiliary platform with a balance platform and grating above as shown and described for the purpose set forth.

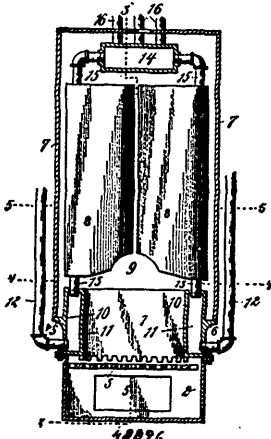
**No. 48,895. Table Desk. (Table-pupitre.)**



Arsène Edmond Courchesne, Quebec City, Quebec, Canada, 9th May, 1895; 6 years.

*Claim.*—1st. A table desk, comprising a hinged top plate, and a hinged rod having a slidable connection with the free end of the said top plate, and adapted to be fastened thereto, substantially as shown and described. 2nd. A table desk, comprising an adjustable rod, a top plate hinged on the said rod, and a brace rod hinged on the said rod and having a slidable connection with the free end of the said top plate, substantially as shown and described. 3rd. A table desk, comprising an adjustable rod, a top plate hinged on the said rod, a brace rod on the said rod and having a slidable connection with the free end of the said top plate, and means, substantially as described, for fastening the said brace rod to the said top plate, as set forth. 4th. A table desk, provided with a top plate, a rail, side arms in which the said rail is mounted to turn, the said side arms being hinged to the sides of the said top plate, and a catch held on the said rail and adapted to engage staples in the top plate, substantially as shown and described. 5th. A table desk, provided with a top plate, a rail, side arms in which the said rail is mounted to turn, the said side arms being hinged to the sides of the said top plate, a catch held on the said rail and adapted to engage staples in the top plate, and spring arms held on the said rail to form a clamp in connection with the top plate, substantially as shown and described. 6th. A table desk provided with a clamp having a vertical and horizontal clamping screw, substantially as shown and described.

**No. 48,896. Water Heater. (Appareil à chauffer l'eau.)**

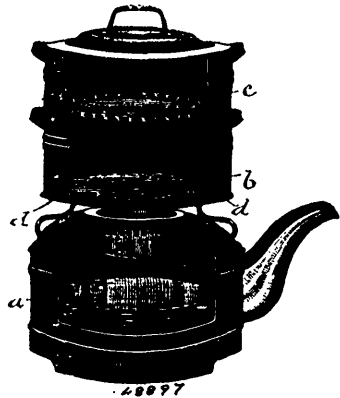


James M. Laing, Bay City, Michigan, U.S.A., 9th May, 1895; 6 years.

*Claim.*—A water heater comprising a fire-box, a surrounding water

jacket provided with an exterior lateral flange *g*, a casting resting upon said flange, twin series of parallel spaced heating boxes or chambers *8* arranged vertically above the fire-box with their outer sides flush with the outer walls of the water jacket, and their inner walls in proximity to each other, the lower ends of said boxes or chambers being rounded or concave to form a space *9* communicating with the fire-box, a fuel door being arranged in the casing opposite one end of this space *9*, pipes connecting the boxes or chambers severally with the water jacket, and in that pipe communicating with the water jacket, a distributing chamber or reservoir arranged above the plate of the upper ends of the heating boxes or chambers and adjacent to a central outlet opening in the top of the casing, pipes connecting said reservoir with the heating boxes or chambers, and distributing pipes communicating with the reservoir, substantially as described.

**No. 48,897. Cooking Appliance. (Ustensile de cuisine.)**

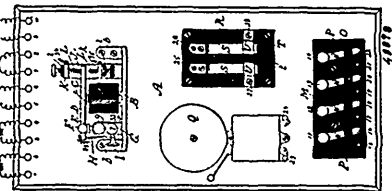


Herbert Omri Ely, Montreal, Quebec, Canada, 9th May, 1895; 6 years.

*Claim.*—1st. A cooking appliance, in the form of an enclosing receptacle having a cylindrical extension projecting from its bottom, with or without a lateral supporting flange and adapted to be passed through the top opening of a kettle and openings for allowing steam from the kettle to enter such receptacle, for the purpose set forth. 2nd. A cooking appliance comprising enclosing receptacle *b*, with its bottom perforated at *f*, an open ended cylindrical extension *c* with or without perforations *h* and having flange *g*, for the purpose set forth.

**No. 48,898. Electric Alarm and Call System.**

(Appareil avertisseur électrique.)



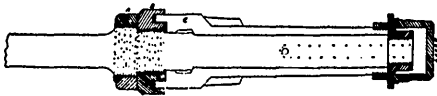
Joseph Vitalion Martel, L'Assomption, Quebec, Canada, 9th May, 1895; 6 years.

*Claim.*—1st. An apparatus for giving or receiving alarm signals consisting of an automatic switch operated by an electro-magnet, a battery for exciting the field of the said electro-magnet, an alarm bell and battery connected thereto, a duplex manipulator and a quadruplex switch adapted to change the character of the connections between the above named elements, substantially as set forth. 2nd. In an apparatus for giving and receiving alarm signals, an automatic switch, an electro-magnet operating the said switch, a battery exciting the field of the said electro-magnets, the automatic switch being so arranged that the breaking of the circuit on which the electro-magnet is placed will so operate the switch as to close the circuit on which is an electric alarm bell, substantially as set forth. 3rd. An apparatus for giving and receiving alarm signals, consisting of an automatic switch operated by an electro-magnet, so

that a current passing from a distant station will excite the field of the said electro magnet and operate the switch so as to close a circuit on which an electric alarm bell is placed, substantially as set forth.

4th. An automatic switch consisting of the electro-magnet C, its armature e, the lever D to which the armature is secured, the cross-head E held adjustably in a hollow pillar, by means of a set screw, the screws F and lock nuts / holding the said lever D pivotally in the said cross-head, a tension spring H secured to one end of the said lever D, contact screws secured in insulated blocks by means of lock nuts, one above and the other below the said lever, substantially as set forth.

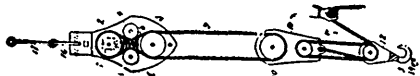
**No. 48,899. Carriage-Axle. (Essieu de voiture.)**



Frédéric Gougeon, St. Jérôme, Quebec, Canada, 9 mai, 1895; 6 ans.

*Résumé.*—La combinaison des deux collets A et B, telle que ci-dessus décrite et pour les fins indiquées.

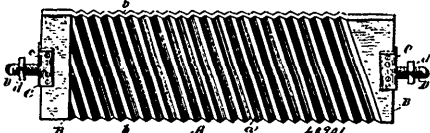
**No. 48,900. Fire Escape. (Sauveteur d'incendie.)**



Nick Zelzter, Napoleon, Indiana, U.S.A., 10th May, 1895; 6 years.

*Claim.*—In a fire escape, the combination with a frame provided with an extensible transverse bar adapted to engage the inner sides of a window or door casing, with the herein described pulley block containing a sheave journaled in vertically movable bearings normally upheld by springs, the supplemental friction sheaves adapted to cooperate with the said movable sheave, the separating sheave beneath the supplemental sheaves, the endless rope passing over the movable sheave and between the supplemental sheaves, the pulley block and sheave adapted to engage the lower loop of the endless rope, the tension tackle connecting the said pulley block with a grappling block, and the flexible chute adapted to envelop the endless rope and its adjuncts, all constructed and arranged substantially as and for the purpose herein specified.

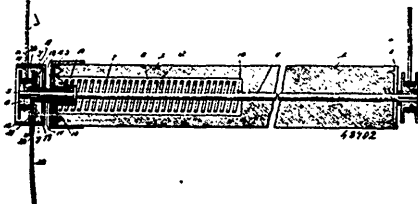
**No. 48,901. Stone Saw. (Scie pour la pierre.)**



The Sharp Stone Saw Company, assignee of Miles Litchford all of Columbus, Ohio, U.S.A., 10th May, 1895; 6 years.

*Claim.*—A stone saw provided with corrugations on both of its sides; said corrugations forming valleys and angular ridges whereby the frictional area on the sides of the saw is reduced while water and sand can be freely supplied along the entire length of the saw at all points, substantially as described.

**No. 48,902. Curtain Fixtures. (Porte-rideau.)**

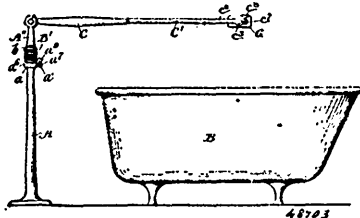


Irvin Williams and Dennis Koenig, both of Nelson, Missouri, U.S.A., 10th May, 1895; 6 years.

*Claim.*—1st. In a curtain fixture, the combination with an ordinary spring-actuated shade roller, of a shaft arranged longitudinally in the roller and having winding wheels at its extremities, a non-rotative shaft sleeve located within one end of the roller and having a cylindrical wheel cap enclosing one of the winding wheels, and pawl notches at both sides of said cap, pawls pivoted to one end of the roller and to one side of the cap inclosed winding wheel, a separate pawl and ratchet check device for the cap inclosed winding wheel, and the supporting tapes or cords, substantially as set forth. 2nd. In a curtain fixture, the combination of an ordinary spring actuated shade roller, the longitudinal roller shaft, winding wheels attached to the outer extremities of the shaft and one of which is provided with a ratchet disc or flange, a non-rotative shaft sleeve located at one end of the roller and having a cylindrical wheel cap inclosing the winding wheel with the ratchet disc or flange, a pair of pawl notches at one side of the wheel cap and a single pawl notch located inside of the wheel cap, the ordinary arresting pawls pivoted at one end of the roller, the check pawls mounted on the cap inclosed wheel, and a spring pawl arranged within the wheel cap and adapted to engage said ratchet disc or flange, and the supporting tapes or cords, substantially as set forth. 3rd. In a curtain fixture, the combination of an ordinary spring actuated shade roller, the longitudinal roller shaft, winding wheels attached to the outer extremities of the shaft and one of which is provided with a ratchet disc or flange, a non-rotative shaft sleeve located at one end of the roller and having a cylindrical wheel cap inclosing the wheel with the ratchet disc or flange, and pawl notches at both sides of said cap, pawls pivoted to one end of the roller and to one side of the cap inclosed winding wheel, a curved spring pawl mounted within the wheel cap and adapted to engage said ratchet disc or flange, a pull cord attached at one end to said spring pawl, and the supporting tapes or cords, substantially as set forth.

4th. In a curtain fixture, the combination of an ordinary spring actuated shade roller, the longitudinal roller shaft, winding wheels attached to the outer extremities of the shaft and one of which is provided with a ratchet disc or flange, a non-rotative shaft sleeve located at one end of the roller and having a cylindrical wheel cap inclosing the winding wheel with the ratchet disc or flange, a pair of pawl notches at one side of the wheel cap and a single pawl notch located inside of the wheel cap, the ordinary arresting pawls pivoted at one end of the roller, the check pawls mounted on the cap inclosed wheel, and a spring pawl arranged within the wheel cap and adapted to engage said ratchet disc or flange, and the supporting tapes or cords, substantially as set forth. 3rd. In a curtain fixture, the combination of an ordinary spring actuated shade roller, the longitudinal roller shaft, winding wheels attached to the outer extremities of the shaft and one of which is provided with a ratchet disc or flange, a non-rotative shaft sleeve located at one end of the roller and having a cylindrical wheel cap inclosing the wheel with the ratchet disc or flange, and pawl notches at both sides of said cap, pawls pivoted to one end of the roller and to one side of the cap inclosed winding wheel, a curved spring pawl mounted within the wheel cap and adapted to engage said ratchet disc or flange, a pull cord attached at one end to said spring pawl, and the supporting tapes or cords, substantially as set forth.

**No. 48,903. Bath Apparatus. (Appareil pour bains.)**

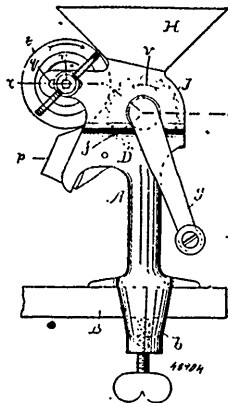


Michael J. Lyons and Levi Beemer, both of Duluth, Minnesota, U.S.A., 10th May 1895; 6 years.

*Claim.*—1st. The combination of a suitable support, a lever pivotally mounted on the same, counter-balancing devices for said lever, a scrubbing device inclosed on said lever and a handle for operating the same, substantially as described. 2nd. The combination of a suitable support, provided with a yoke, a lever pivotally mounted on the same and also provided with a yoke, a scrubbing device holder on one arm of said yoke and an operating handle on the other, substantially as described. 3rd. The combination of a suitable support, a lever pivoted on the same and provided with a yoke, an adjustable operating handle for said lever mounted on one arm of said yoke, and a scrubbing device support on the other arm, and counter-balancing devices for said lever, substantially as described. 4th. In a bath brush apparatus, the combination of a suitable support, a lever pivotally mounted on the same, a spring connecting said support and lever whereby the latter moves under tension, a scrubbing device support mounted on said lever, and a handle for operating said lever, substantially as described. 5th. In a bath brush apparatus, the combination of a suitable support, a lever pivotally mounted on the same and provided with a yoke, a spring connecting said support and said lever, means for varying the tension of said spring, a scrubbing device support mounted on one arm of said yoke, and an operating handle on the other arm, substantially as described. 6th. In a bath brush apparatus, the combination of a suitable support, a lever pivotally mounted on the same and provided with a yoke, a spring connecting said support and said lever whereby the latter moves under tension, a scrubbing device support adjustably mounted on one arm of said yoke and an operating handle adjustably mounted on the other arm, substantially as described. 7th. In a bath brush apparatus, the combination of a support consisting of a support proper and a yoke having swivel connection therewith, a trunnion mounted between the arms of said yoke, a lever having a yoke and attached to said trunnion springs connecting the support with said latter yoke and a scrubbing device support and operating handle mounted on said lever, substantially as described. 8th. In a bath brush apparatus, the combination of a suitable support, a yoke having swivel connection therewith, a spring controlling said swivel action, a lever mounted between the arms of said yoke and a scrubbing device support and operating handle mounted on said lever, substantially as described. 9th. In a bath brush apparatus, the combination of a suitable support, a yoke having swivel connection therewith, a spring controlling said swivel action, a lever pivotally mounted in said yoke, a spring connecting said support and said lever

whereby the latter moves under tension, a scrubbing device support mounted on said lever and a handle for operating said lever, substantially as described. 10th. In a bath brush apparatus, the combination of a clamp adapted to be attached to or over a projecting edge, a supporting standard adjustably mounted on said clamp, a pivoted lever mounted on said standard, a scrubbing device support on said lever and an operating handle for said lever, substantially as described. 11th. In a bath brush apparatus, the combination of a separable clamp having two hollow semi-spherical ball casings, a supporting standard having a ball adapted to be inclosed by said casings, a pivoted lever mounted on said standard, a scrubbing device support on said lever and an operating handle for said lever, substantially as described. 12th. In a bath brush apparatus, the combination of a suitable support, a yoke having swivel connection therewith, an adjustable spring controlling said swivel connection, a lever pivotally mounted in said yoke, adjustable springs connecting said support and lever whereby the latter moves under tension, a scrubbing device support mounted on said lever and an operating handle for said lever, substantially as described.

**No. 48,904. Raisin-Seeder. (Vide-raisin.)**



William Johnson, Hull, Massachusetts, U.S.A., 10th May, 1895; 6 years.

*Claim.*—1st. In a raisin-seeder, a perforating wheel constructed of a series of discs in combination with a flexible presser-wheel engaging the periphery of the perforating wheel. 2nd. In a raisin seeder, a rotary perforating wheel provided with circumferential spaces for receiving the raisin meat and a scraper for removing said meat. 3rd. In a raisin-seeder, a hopper and rotary perforating wheel provided circumferentially with spaces for receiving the meat, a presser-wheel and a scraper for removing said meat. 4th. In a raisin-seeder, the rotary perforating wheel D mounted on a standard, in combination with the hopper and the adjustable rubber presser-wheel *t* on said standard. 5th. In a raisin-seeder, the combination of the standard with the wheel D mounted thereon, the flexible presser-wheel engaging the periphery of said wheel, the scraping clute and the comb *k* having teeth projecting into the periphery of said perforating wheel, substantially as described.

**No. 48,905. Process of Rendering Cocoa Soluble.**

(*Procédé pour rendre le coco soluble.*)

Wilhelm Gaedke, Hamburg, Germany, 10th May, 1895; 6 years.

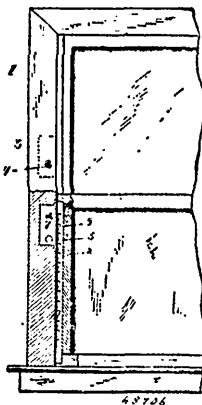
*Claim.*—The process for the rendering soluble of cocoa distinguished by the full roasted and shelled cocoa-beans being moistened before grinding with a small quantity (say up to 2 per cent) of alkalis, (caustic alkali, carbonic acid alkali, ammonia), dissolved in water in the proportion of at least 20 per cent of the weight of the beans or with water without alkalis, the cocoa being then warmed and dried without further roasting, the temperature employed not exceeding 100° Centigrade, substantially as set forth.

**No. 48,906. Sash Fastener. (Arrêté-croisé.)**

John E. Hartmann, Tacoma, Washington, U.S.A., 10th May, 1895; 6 years.

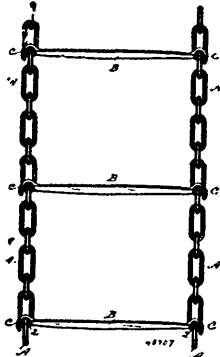
*Claim.*—The combination with a window frame, of a sash moving therein having notches along one edge thereof which are engaged by a spring-pressed pawl in said frame for holding the sash in its adjusted position, and means for locking said pawl in its outer or locking position, consisting of a spring bearing against said pawl, a

tumbler having a notch therein adapted to rest normally behind said pawl, a key shaft adapted to be engaged by a key, and lugs on said shaft, one of which upon turning the shaft is adapted to engage



the notch in the tumbler, and lift said tumbler out of engagement with said pawl and the other adapted to engage the shoulder on said pawl to withdraw the same from engagement with the notches in the sash, substantially as and for the purpose described.

**No. 48,907. Chain Ladder. (Echelle.)**



John Maw, Hamilton, Ontario, Canada, 10th May, 1895; 6 years.

*Claim.*—1st. In a chain ladder, a metallic rundle of malleable nature having end jaws to fasten against and around, and to rest upon the same link of chain, substantially as described and set forth. 2nd. In a chain ladder, a metallic rundle of malleable nature having end jaws to close against and to fasten to the flat sides of a chain link, and resting upon the upper wide part of adjoining link, forming a combination of run dles with sides of ladder, substantially as described and set forth.

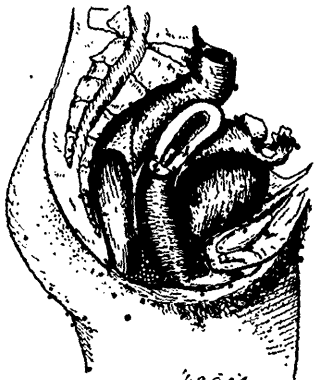
**No. 48,908. Electric Womb Battery.**

(*Pile électrique pour la matrice.*)

Julius Caesar Petit, Saint Louis, Missouri, U.S.A., 10th May, 1895; 6 years.

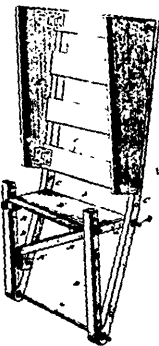
*Claim.*—1st. The herein described electrical device for the treatment of diseases of the womb, comprising a body and a stem; the said stem being composed of a compound light metal either positive or negative to the metal of which the body is composed, substantially as and for the purpose set forth. 2nd. An electrical device for the treatment of diseases of the womb, comprising a cup shaped body having its edged turned and also having a central hollow or depression, and exteriorly threaded screw, and a hollow, interiorly threaded stem engaging the screw, the said stem being composed of a metal either positive or negative to the metal of which the body is com-

posed, substantially as set forth. 3rd. The combination with an electrical device comprising a body having a hollow screw, and a



hollow stem connected to said screw of an adjusting implement *f*, having a hook at one end, substantially as shown and described.

**No. 48,909. Window Bracket. (Console de fenetre.)**

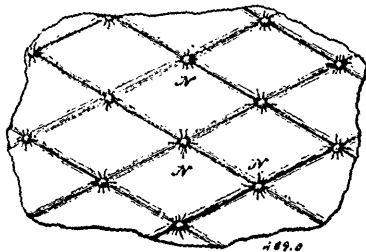


Leonard S. Bailey, West Potsdam, New York, U.S.A., 10th May, 1895; 6 years.

*Claim.*—1st. In a window bracket or platform, the horizontal retaining bars *A* formed with hooks on their inner ends, an adjustable back or safety guard hinged to the outer ends thereof and provided with downwardly and inwardly projecting extensions or inclined braces formed integrally with said back, upright braces *D* hinged to the lower extremities of said inclined extensions or braces and having their upper ends in engagement with the horizontal retaining bars, for the purpose and substantially as specified. 2nd. In a window bracket or platform, the horizontal retaining bars *A* provided at their outer ends with a series of horizontally aligned perforations *a*, an adjustable safety guard or back hinged thereto and provided with inwardly and downwardly projecting extensions or inclined braces formed integrally with said back, the removable tie-rod or bolt *B* connecting said parts and rendering the safety guard or bolt adjustable lengthwise of the horizontal retaining bars for adapting the device to window sills of different thicknesses, and the upright braces pivoted to the lower ends of said inclined braces or extensions and connected at their upper ends by a cross-tie rod *D'*, located above and resting upon the upper faces of said retaining bars, all arranged substantially as described. 3rd. In a window bracket or platform, the horizontal retaining bars *A*, the adjustable back or safety guard hinged to the outer ends thereof and provided with the downwardly and inwardly projecting extensions or inclined braces, and the upright braces pivotally connected to the lower ends of said extensions or inclined braces and engaged at their upper ends with the horizontal retaining bars, in combination with a pair of side wings or flaps pivotally connected with said back at either side by means of hinges located in advance of the rear edges of said wings or flaps, whereby the rear edges of the wings or flaps are adapted to form stops for limiting the lateral movements thereof, substantially as shown and described.

**No. 48,910. Tufting for Upholstering.**

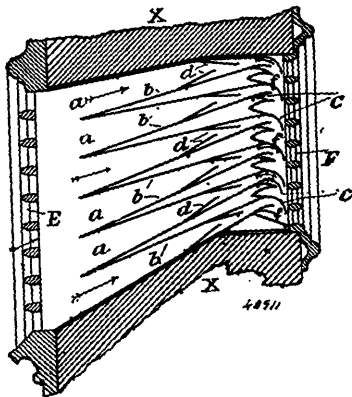
(Garnitures pour tapisseries.)



Alfred Freschl, Oshkosh, Wisconsin, U.S.A., 10th May, 1895; 6 years.

*Claim.*—1st. The improved method of making hand-made tufting for upholstery, which consists in laying a piece of pliable material face downward, loosely, over a form having a plurality of depressed moulds pressing the material into said moulds, filling the depressions formed in the material with a suitable pliable substance, enclosing or covering the filled depressions with separated pieces of card-board or analogous material, and finally applying and permanently securing a backing of cloth or other suitable pliable material over the back of the entire article, substantially as described. 2nd. As an improved article of manufacture, to wit, tufting, which comprises in its construction, an outer ornamental piece of material provided with spaced tufts having a flexible connection between them, and the tufts filled with a suitable yielding material, separate pieces of card-board or equivalent material for holding the filling material in each tuft in place, and a backing of cloth or other suitable pliable material applied over the back of the entire article, and permanently secured thereto, substantially as described.

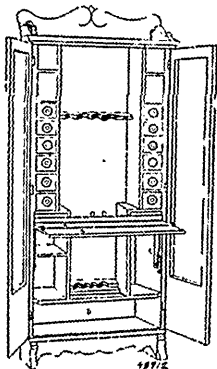
**No. 48,911. Ventilator. (Ventilateur.)**



James Curtin, Carlton, Victoria, 10th May, 1895; 6 years.

*Claim.*—1st. An improved ventilation apparatus consisting of a series of flues *a* with wide openings, and narrow exits *f*, said flues formed by a series of divisions *b*, and having attached to said divisions a series of fixed trap-plates *d*, arranged to form successive traps or pockets in said flues on alternate sides, substantially as and for the purposes set forth, and as illustrated in the drawing. 2nd. An improved adjustable ventilation apparatus having in combination a series of flues *a*, movable trap-plates *d'* within said flues, bars *m*, *n*, connected to said plates at the outlets *f* of said flues and means for moving said bars and plates, substantially as and for the purposes set forth, and as illustrated in the drawing. 3rd. In a sewer ventilation apparatus the arrangement and combination of inlet ventilator *B*, shaft *L* and outlet ventilator *C*, substantially as described, with reference to figure 1 of the drawing. 4th. In an inlet ventilation apparatus the arrangement and combination of inlets *A*, flues *a'*, divisions *b'*, chamber *a*, channel *l*, pipes *D*, flues *a*, divisions *b*, trap-plates *d*, and outlets *f*, all as herein described, with reference to figures 2 to 5 of the drawing.

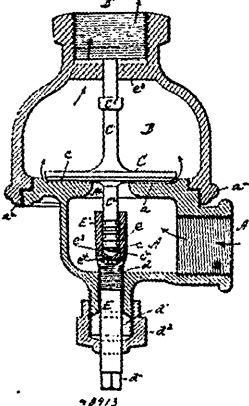
**No. 48,912. Sportsman's Cabinet. (Cabinet de chasseurs.)**



George Forteous, Guelph, Ontario, Canada, 10th May, 1895; 6 years.

*Claim.*—1st. In combination with a suitable cabinet or stand, the folding table consisting of the leaf A, rigidly attached to the upper arm of a swinging iron bracket or support C, the lower arm pivoted on a stud in the inner casing of the cabinet or stand, the upper arm of the bracket being also hinged so as to hold an additional leaf B which may be folded up over the fixed leaf A when the table is not in use; said table being held in place by one or more spring bolts engaging in suitable holes in the casing, the whole combined and operating as hereinbefore described and illustrated 2nd. The folding adjustable table consisting of a fixed leaf A, a folding leaf B, both situate on the upper hinged arm of an iron support or bracket G or pairs of the same said brackets or supports being pivoted at their lower ends inside the casing of a sportsman's cabinet consisting of a rack with bevelled foot for holding guns, fishing-rods, etc., together with a suitable arrangement of drawers, plain or metal or canvas lined, and pigeon holes and compartments for various purposes; adapted to be closed with suitable doors, said doors being provided with stops to prevent their closing when the table is in position; the whole combined and operating as hereinbefore described and illustrated in the drawing.

**No. 48,913. Valve. (Soupape.)**



Edgar Prentice Holly, Providence, Rhode Island, U. S. A., 10th May, 1895; 6 years.

*Claim.*—1st. In a pressure reducing valve, the following instrumentalities, a supply chamber and a receiving chamber of lower pressure, a passage connecting said chambers, a disc of not less than four times the area of said passage, to cover it, and an adjustable stud entering into the initial pressure chamber to hold said disc at a higher or lower position, substantially as set forth. 2nd. In a pressure reducing valve, the combination of an initial pressure chamber, a receiving chamber, a passage connecting said chambers, a disk larger than the passage, to cover it, stems projecting from

both faces of the disc with guides fast to the chambers, arranged to guide the stems, and an adjustable stud entering into the initial pressure chamber to raise or lower said disc by the stem on its under side, substantially as described. 3rd. In a pressure reducing valve, the combination of the chambers A and B, with passage A<sup>2</sup>, a disc as C having a central shaft or stem C<sup>1</sup>, C<sup>2</sup>, to guide said disc in a vertical movement, a guide c<sup>3</sup>, in the chamber B, a stud E, receiving in one end of itself a portion of the stem C<sup>2</sup>, said portion having a series of annular grooves made around it to form a piston packing to prevent sudden vibrations of the disc, said stud E, provided with a screw d, fitting a threaded opening through chamber A, and a stuffing box d<sup>1</sup> and follower d<sup>2</sup>, substantially as described. 4th. In a pressure reducing valve, the combination of the chambers A and B, passage A<sup>2</sup>, between said chambers, disc C, covering the passage A<sup>2</sup>, a centrally projecting stem on said disc in chamber B, with a position guide therefor formed in said chamber B, a centrally projecting stem on said disc in chamber A, a stud B, constructed to receive a portion of said latter stem to raise the disc from the passage and increase the pressure in the chamber B, substantially as described. 5th. In a pressure reducing valve, the combination of the chambers A and B, disc C, having a central shaft or stem C<sup>1</sup>, C<sup>2</sup>, C<sup>3</sup>, being enlarged at c<sup>4</sup>, to a diameter larger than the opening in guide c<sup>3</sup>, thereby forming a stop of the vertical movement of disc C, and adjusting stud E, substantially as described. 6th. In a pressure reducing valve, the combination of the chambers A and B, a passage A<sup>2</sup>, to the chamber A, a disc C, provided with stems C<sup>1</sup>, C<sup>2</sup>, covering said passage A<sup>2</sup>, and of a considerably larger diameter than said passage, and a guide in its vertical motion by the guide bar c<sup>3</sup>, and stud E, a raised seat f, surrounded said passage A<sup>2</sup>, all substantially as shown and described for the purpose as set forth.

**No. 48,914. Shoe-Lace Holder. (Agrafe de lacets.)**



George Eli Mongeau, Lowell, Massachusetts, U.S.A., 10th May, 1895; 6 years.

*Claim.*—1st. A shoe-lace holder comprising a base or body having an outwardly projecting-bow-shaped portion adapted to receive and support a bunch of shoe-laces and a spring-actuated clamping arm or lever extending up behind the bow and pressed outwardly toward the front of the bow to hold said bunch against the front portion of the bow with a yielding pressure, substantially as described. 2nd. In a shoe-lace holder, the base or body A, having an outwardly projecting portion B, adapted to receive and support a bunch of shoe-laces, said portion B, being provided with a spring-actuated latch c, in combination with a spring-actuated clamping arm or lever C, extending upwardly across the bow and pressed forwardly by its spring to hold said bunch against the front of the portion B, with a yielding pressure, substantially as set forth. 3rd. In a shoe-lace holder, the base or body A, having an outwardly projecting portion B, adapted to receive and support a bunch of shoe-laces, in combination with the spring-actuated arm or lever C, pivoted to the base beneath the bow B, and provided with a slot e, whereby it is adapted to pass over said bow and exert an outward pressure against the bunch of shoe-laces within the same, substantially as set forth. 4th. In a shoe-lace holder, the combination of the base or body A, having an outwardly projecting bow-shaped portion B, the curved lever C, pivoted to the base beneath the bow B, and adapted to extend up behind the bunch of shoe-laces within said bow B, said lever being provided with a slot e, whereby it is adapted to pass over and embrace the bow B, and the spring f, adapted to exert an outward pressure on the lever C, to hold the shoe-laces against the bow B, with a yielding pressure, substantially as set forth.

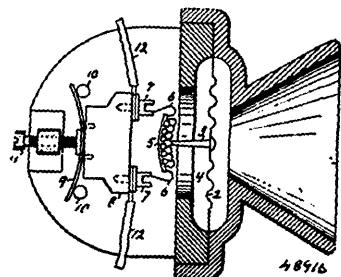
**No. 48,915. Collar Button. (Bouton de col.)**



Richard Gatzsche, Hartha, Germany, 11th May, 1895; 6 years.

*Claim.*—A collar button having a shank of oblong cross-section and a head of flat, arched or heart-shaped form whose plane is put rectangularly to the broad side of the shank, substantially as set forth.

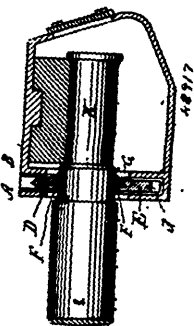
**No. 48,916. Telephone Transmitter.**  
(*Transmetteur téléphonique.*)



Herbert Cottrell, Newark, New Jersey, U.S.A., 11th May, 1895; 6 years.

*Claim.*—1st. In a telephone transmitter, a variable resistance piece, consisting of a conducting base having projections extending therefrom, a diaphragm susceptible of being vibrated by sound waves, and means for varying the contact between the projections, in correspondence with the vibrations of the diaphragm, to produce variations in the current, substantially as described. 2nd. In a telephone transmitter, a variable resistance piece, consisting of a conducting base and projections extending therefrom, a diaphragm susceptible of being vibrated by sound waves, and means for varying the contact between the projections by communicating the vibrations of the diaphragm to the base of the resistance piece, to produce variations in the current, substantially as described.

**No. 48,917. Oil Retainer and Dust Guard for Car-Axle Boxes.** (*Garde-poussière pour boîtes à graisse.*)



Issac P. Patton, Smith's Falls, Ontario, Canada, 11th May, 1895; 6 years.

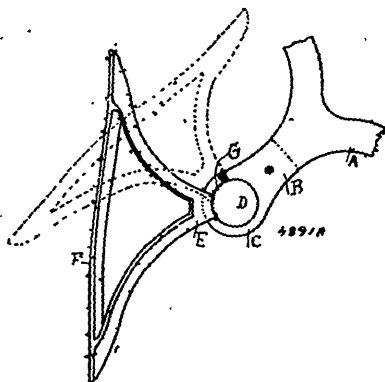
*Claim.*—1st. The combination, with an axle-box and journal, of a metal case or flat shell A, fitting into grooves within the axle-box and having an elliptical opening to receive the journal, and conjoined plates D and E sliding within said case each having a semi-circular recess lashed by brasses F, to surround the journal whereby the conjoined plates have a sliding movement in said case when the journal moves up and down by the motion of the car, substantially as set forth. 2nd. An oil retainer or shield and dust guard for car-axle-boxes, comprising a case A, perforated to admit a car journal, and conjoined plates D and E, having a semi-circular recess lashed by brasses F to surround the journal, said conjoined plates sliding in said case, as and for the purpose set forth. 3rd. An oil retainer and dust guard or shield comprising a case or shell A perforated to admit a car journal, and conjoined plates D and E, having recesses F to surround the journal and connected by a rod or bolt J, bent around three edges and connected along the other edge by a bar L to draw the plates together and tighten the brasses around the journal, as set forth.

**No. 48,918. School Seat, Etc.** (*Siège d'école, etc.*)

William C. Hood, Racine, Wisconsin, U.S.A., 11th May, 1895; 6 years.

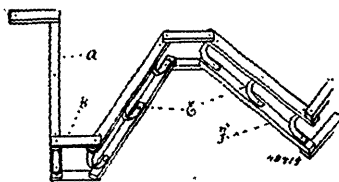
*Claim.*—1st. A seat standard having an arm terminating in a

socket the hollow of which is intercepted by a slot contracted at the extremities thereof, a seat bracket having its shank engaging the slot, and a ball on the shank in engagement with the socket, the



thickness of said shank being substantially equal to the width of that portion of said slot intermediate of its contracted extremities. 2nd. A seat standard having an arm thereof terminating in a socket the hollow of which is a true circle and intercepted by a slot having contracted extremities, a seat bracket engaging the slot, and a somewhat elliptical ball on the shank in engagement with the socket.

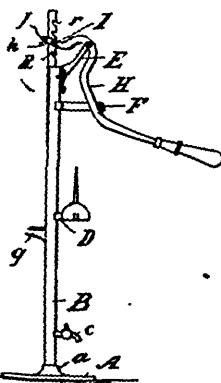
**No. 48,919. Bed Spring and Fire Escape.**  
(*Sommier et sauveur d'incendie.*)



Henry Marcheter, Wallaceburg, Ontario, Canada, 11th May, 1895; 6 years.

*Claim.*—The combination of the bars A, F, and B, with the springs E, substantially as and for the several purposes hereinbefore set forth.

**No. 48,920. Carriage-Jack.** (*Chèvre de carrosserie.*)

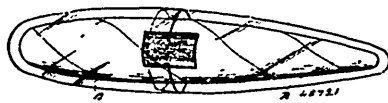


John W. Currier, Los Angeles, California, U.S.A., 11th May, 1895; 6 years.

*Claim.*—1st. A carriage-jack consisting of a vertical slotted tube

secured in a suitable base, a plug sliding in the said tube, a bracket or rest cast integrally with the said plug and adapted to project through the slot in the said tube, a notched rocking bar pivoted to the said plug, a lever pivoted in a bracket secured to the upper end of the said tube, the said lever being adapted to engage any of the notches on the said rocking bar, and a clip adapted to engage and hold one end of the said lever, substantially as set forth. 2nd. In a carriage-jack, the combination with a slotted vertical tube secured in a suitable base and forming the standard of the said jack, of an oil reservoir located in the lower part of the said tube and a draw-off cock located in the lower part of the said reservoir, substantially as set forth. 3rd. In a carriage-jack, the combination with the toothed rocking bar R, pivoted at its lower end to the plug carrying the bracket or rest and adapted to slide in the standard of the said jack of the lever H, pivoted in a bracket secured to the upper end of the said standard, the plate h, and bolts I, J, and the clip F, substantially as set forth.

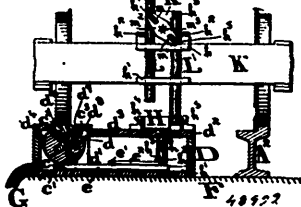
**No. 48,921. Packing Case for Aromatic Substances.**  
(Caisse d'emballage pour substances aromatiques.)



Charles M. Stephens, Detroit, Michigan, U.S.A., 11th May, 1895; 6 years.

*Claim.*—1st. A packing case for aromatic articles, consisting of a two-part casing, each of which parts has a gelatine body and a water-proof coating adherent thereto. 2nd. The process of making a packing case for aromatic bodies, consisting of making a gelatine case, cleansing the interior thereof from the oil used in manufacturing it, and coating the exterior thereof with a water-proofing compound, substantially as described. 3rd. A transparent packing case made of gelatine coated with a water-proofing compound, substantially as described. 4th. The combination of a water-proof covered gelatine capsule made in two parts, and a seal adapted to be united by a suitable cement to the two parts over the joint thereof, substantially as described.

**No. 48,922. Railway Switch.** (Aiguille de chemin de fer.)

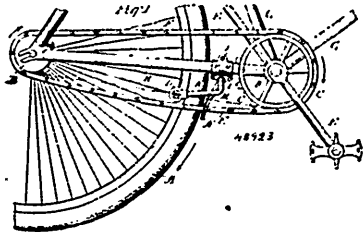


John Hartman, Philadelphia, Pennsylvania, U.S.A., 11th May, 1895; 6 years.

*Claim.*—1st. The combination, in a railway switch, of the cylindrical switch-member having a detachable grooved section extending throughout its length, said member having its axis in the horizontal plane with the railway, and adapted to be rotated between adjacent ends of a track rail, as set forth. 2nd. The combination, with a railway switch, of the cylindrical switch-member having a longitudinal cavity, and having its axis in the horizontal plane with the railway, and the section located in the said cavity, and adapted to be rotated with the said switch member between the adjacent ends of a track rail, as set forth. 3rd. The combination in a railway switch, of the cylindrical switch-member having a detachable section extending throughout its length and adapted to be rotated between the adjacent ends of a track rail having its axis in the same horizontal plane with the latter, as set forth. 4th. The combination of the longitudinal grooved switch-member, with the switch-box containing the said switch-member axis having a longitudinal opening, and means housed by the switch-box and operated by a propelled car to bring the grooves of the said switch-member into continuity and discontinuity with the said switch box opening, as set forth. 5th. The combination of a switch-box, interspersed between the ends of adjacent rail sections, containing the switch-operating mechanism and having concavities therein, a rotary switch-member connected with said mechanism and having its bearings in the concavities, the lid of said box being sectional, certain of the sections of which having oppositely disposed flanges, which overlap and retain the ends of the rail sections between them, substantially as specified. 6th. The combination of a switch-box interspersed between the ends of adjacent rail sections, having concavities therein and provided

with a sectional lid, a rotary switch member having its bearings in the non-cavities and provided with a rod or pitman, certain sections of said lid having oppositely disposed flanges which overlap and retain the ends of the rail sections between them, a vertical rock-shaft provided with a lateral arm or extension having bearings in another lid section and in the bottom of the box, and approximately wedge-shaped lever on said shaft and a link connecting the arm of the latter and the rod or pitman, a suitable propelled railway-car and an actuating device carried thereby, adapted for contact with either of the inclined sides of the said lever, substantially as specified.

**No. 48,923. Vehicle-Brake.** (Frein de voiture.)



Herbert L. Bailey, Chicago, Illinois, U.S.A., 11th May, 1895; 6 years.

*Claim.*—1st. A brake for chain driven vehicles operated by or through the lateral movement of the normally slack side of the driving chain thereof, substantially as described. 2nd. In an automatic brake for chain driven vehicles, the combination with a brake device of means operated by the lateral movement of the slack side of the driving chain of said vehicle for automatically setting the brake device and means for automatically releasing said device, substantially as described. 3rd. In an automatic brake for chain driven vehicles, the combination of a brake device, of a lever connected therewith and operated by the lateral movement of the slack side of the driving chain of said vehicle, substantially as described. 4th. In an automatic brake for chain driven vehicles, the combination of a rock-shaft and radial arms thereon, one of said arms operating a brake device, and the other arm being operated by the lateral movement of the slack side of the driving chain of said vehicle, substantially as described. 5th. In an automatic brake for chain driven vehicles, the combination with a rock-shaft journaled in the frame of the machine and radial arms thereon, of a brake spoon carried by one of said arms for engaging the tire of the vehicle-wheel and an anti-friction roller carried by the other of said arms and adapted to be operated by the lateral movement of the slack side of the driving chain of said vehicle, substantially as described. 6th. In an automatic brake for chain driven vehicles, the combination with a rock-shaft journaled in the frame of the machine and radial arms thereon, one or both of which are adjustable, of a brake spoon carried by one of said arms for engaging the tire of the vehicle-wheel and an anti-friction roller carried by the other of said arms and adapted to be operated by the lateral movement of the slack side of the driving chain of said vehicle, substantially as described. 7th. In an automatic brake for chain driven vehicles, the combination with one of the vehicle-wheels, the pedal-shaft, a sprocket-wheel and chain connection between said shaft and wheel, and crank pedals on said shaft, of a brake device operated by or through the lateral movement of said sprocket-chain, substantially as described. 8th. In an automatic brake for chain driven vehicles, the combination with one of the vehicle-wheels, the pedal-shaft, a sprocket-wheel and chain connection between said shaft and wheel, and crank pedals on said shaft, of a brake device operated by or through the lateral movement of said sprocket-chain, substantially as described. 9th. In an automatic brake for chain driven vehicles, the combination with one of the vehicle-wheels, the pedal-shaft, a sprocket-wheel and chain connection between said shaft and wheel, and crank pedals on said shaft, of a rock shaft having radial arms one of which is operated by or through the lateral movement of the slack side of said chain, a brake device operated by the other arm, and means for automatically releasing said brake device, substantially as described.

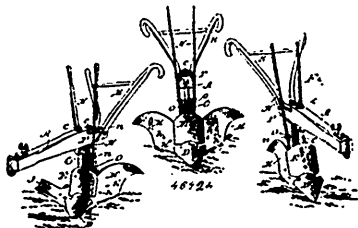
**No. 48,924. Plough.** (Charrue.)

William Frederick Hartig, Evansville, Indiana, U.S.A., 11th May, 1895; 6 years.

*Claim.*—1st. As an improvement in ploughs, the combination with the standard, having a plough point and mould board, of sub-wings pivotally secured to the standard adjacent the plough point, wing members detachably secured to such sub-wings and lever mechanism adapted to be detachably connected to the sub-wings, all arranged substantially as shown and described. 2nd. As an improvement in ploughs, the combination with the standard, having

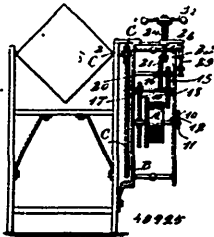


laterally extended vertically aligning apertured ears, of the sub-wings, having apertured ears adapted to fit the standard ears and the pivot bolt for such ears, said wings having shouldered projections on the front face at the inner end, the outer wings having



portions abutting such shouldered portion, adjustably secured on such sub-wing and lever mechanism for swinging the sub-wings laterally, all arranged substantially as shown and described. 3rd. The combination with the standard, the yoke guide frame projected horizontally rearward therefrom, the slides held thereon, and the levers pivoted to the standard, and projected above the beam, said slides having apertured ears of the sub-wings pivoted to the standard to swing inward, having apertured ears at the outer end, and the link arms detachably connected with the slides, the levers, and the sub-wings, and the fit bolt connections therefor, all substantially as shown and for the purposes described.

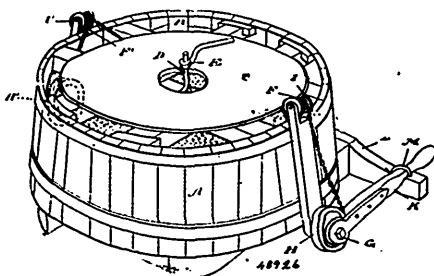
No. 48,923. Motor. (Moteur.)



William H. D. Ludlow, Tecumseh, Nebraska, U.S.A., 11th May, 1895; 6 years.

Claim.—1st. In a spring motor, coiled springs mounted in gear-carrying drums, a power shaft driven by the said drums, a governor, a gear connection between the governor and the power shaft, and means for controlling the governor, as and for the purpose set forth. 2nd. In a motor, the combination, with spring-controlled drums, a power shaft driven by the said drums, a master wheel carried by the power shaft, and means, substantially as shown and described, for transmitting motion from the master wheel, of a governor comprising a governor shaft in gear connection with the power shaft, a disc loosely mounted upon the governor shaft, held in a predetermined position, a second disc secured to the governor shaft above the loosely mounted disc, governor arms pivoted in the governor disc, and having downwardly curved inner ends which arms are adapted for frictional engagement with the loosely mounted disc, the loosely mounted disc being capable of frictional engagement with the governor disc, and means for adjusting the loose disc on the governor shaft, as and for the purpose specified. 3rd. In a spring motor, the combination, with spring-controlled drums, a power shaft driven by said drums, a master wheel carried by said shaft, and means, substantially as shown and described, for transmitting power from the master wheel, of a governor, a sliding disc adapted for engagement with the governor arms and for frictional engagement with the governor body, as and for the purpose specified. 4th. In a spring motor, the combination, with spring-controlled drums, a power shaft driven by said drums, a master wheel carried by the said shaft, and means, substantially as shown and described, for transmitting power from the master wheel, of a governor, the same consisting of a shaft geared with the power shaft, a frame loosely mounted upon the said governor shaft, provided with a friction plate at its upper end, a plate comprising the body of the governor, secured to the governor shaft above the loosely mounted disc, governor arms pivoted in the governor plate or body, and having downwardly curved inner ends which arms are adapted, when said arms are extended, for frictional engagement with the said disc, a brake bar and means for operating the brake bar to carry the disc into frictional engagement with the body of the governor, thereby stopping the motion of the said governor, as and for the set forth.

No. 48,926. Tire Cooler. (Refrigidissoir pour bandages)

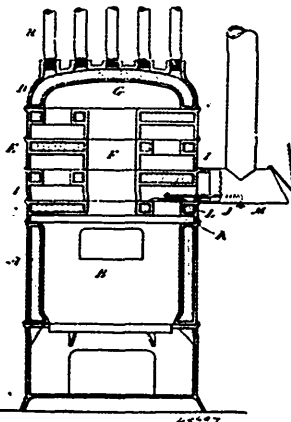


Robert McKay, Shelburne, Ontario, Canada, 11th May, 1895; 6 years.

Claim.—1st. A tire cooler consisting of a tank, a platform within the tank, a shaft passing diametrically across the under side of the tank, a lever connected to the end of the shaft, a pulley mounted on each end of the shaft, a chain connected to each side of the platform and adapted to be wound on the pulleys mounted on the shaft, substantially as specified. 2nd. A tire cooler consisting of a tank, a platform within the tank, a centre bolt connected to the platform to receive the wheel, a shaft passing diametrically across the under side of the tank, a pulley mounted on each end of the shaft, a lever connected to the shaft, idler pulleys connected to the top of the tank, and a chain connected to each side of the tank, passing over its respective idler pulley, and connected to and adapted to be wound on its respective pulley on the shaft, substantially as specified.

No. 48,927. Hot-Water Boiler.

(Chaudière à eau chaude.)

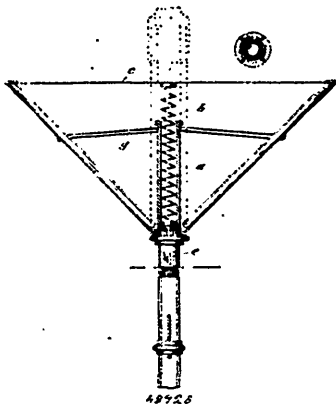


John Galt, Toronto, Ontario, Canada, 13th May, 1895; 6 years.

Claim.—1st. In a hot water boiler, the combination of the combustion chamber, a series of water sections arranged in vertical succession and provided with upward curved lips decreasing in length successively from the bottom lip to the top one, and oppositely arranged downward curved lip increasing length successively from the top lip to the bottom one, a secondary combustion chamber below the bottom water section, an upward passage from the combustion chamber to the secondary chamber, an outlet to the chimney below the secondary chamber and near to the combustion chamber, and downward passages from the secondary chamber to the chimney, substantially as and for the purpose specified. 2nd. In a hot-water boiler, a series of water sections, each of the water sections provided with an upwardly curved lip extending into the outflow to prevent the upflow of the water from the lower water sections interfering with the outflow of the water from the said section, and provided with a downwardly curved lip extending into the inflow to direct the water from the inflow into the respective water section, substantially as and for the purpose specified. 3rd. In a hot-water boiler, the combination of a combustion chamber, a series of water sections

located above the combustion chamber, a secondary chamber located below the top-most water section, an upward passage from the combustion chamber to the secondary chamber, a downward passage from the secondary chamber to the outlet to the chimney, a central partition separating the upward passage from the downward passage and the outflow pipes connected to the top-most water section, substantially as and for the purpose specified.

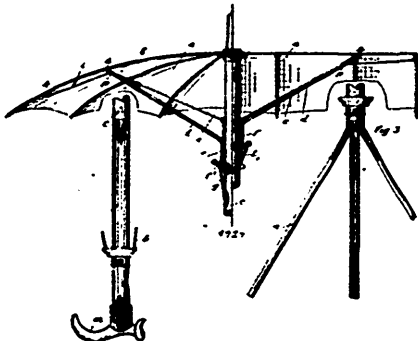
**No. 48,928. Walking-Stick. (Canne.)**



Johann Jacob Wilhelm Behrens, Lübeck, Germany, 13th May, 1885; 6 years.

*Claim.*—1st. A walking stick having hinged stretchers at top adapted to be expanded to support a seat and hinged legs at bottom adapted to be expanded to form a tripod or support, substantially as set forth. 2nd. In a walking stick, the combination of a seat, a casing forming part of the stick and adapted to contain said seat, a spring for holding said seat in said casing and suitable ribs and struts, constructed and arranged substantially as hereinbefore described.

**No. 48,929. Umbrella. (Parapluie.)**



Johann Jacob Wilhelm Behrens, Lübeck, Germany, 13th May, 1885; 6 years.

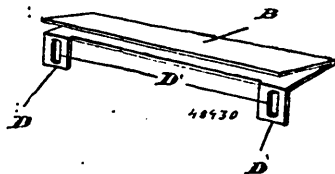
*Claim.*—1st. An umbrella having its stick divided longitudinally to form legs *a*, which are pivoted to the stick, in combination with a handle *m*, adapted to be screwed on to hold the legs together, substantially as set forth. 2nd. An umbrella having double ribs or struts such as *c* and *d* in combination with runners such as *f* and *f'*, constructed and arranged substantially as hereinbefore described.

**No. 48,930. Envelope Machine. (Machine à enveloppes.)**

The W. J. Gage Company, assignee of Charles McBride, all of Toronto, Ontario, Canada, 13th May, 1885; 6 years.

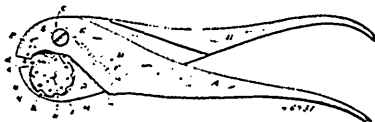
*Claim.*—1st. In an envelope machine, the combination with the creasing box of side guides for the envelope blank, adapted to adjust the envelope blank to its proper relative position to the creasing

box, substantially as specified. 2nd. In an envelope machine, the combination of the creasing box of a side guide connected to the creasing box, adapted to adjust the envelope in its proper relative position to the creasing box, substantially as specified. 3rd. In an



envelope machine, the combination with the creasing box of side guides for the creasing box, and means for adjustably connecting the side guides to the creasing box, substantially as specified. 4th. The combination, with the creasing box, gauges connected to the creasing box, conveyors for the envelope blanks, the side guides connected to the creasing box adapted to adjust the envelope blank to its proper relative position to the creasing box, substantially as specified.

**No. 48,931. Saw Set. (Fer à contourner.)**

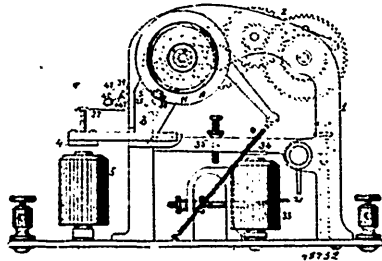


Mrs. Lydia Moyer, assignee of Samuel S. Moyer and Alvin W. Moyer, all of Berlin, Ontario, Canada, 13th May, 1885; 6 years.

*Claim.*—1st. A saw set, comprised of levers A and B, lever B having a cavity D, with a spring F secured therein, a disc K, with a series of holes L, niches M, and cavities O in niches, said disc secured to lever B, by a thumb screw H, a steel pin P, secured in jaw *d* of lever A, substantially as and for the purpose set forth. 2nd. In combination with levers A and B, disc K, thumb nut, and spring F, substantially as described.

**No. 48,932. Printing Telegraph.**

(Télégraphe imprimant.)



Oscar Lillian Kleber, Pittsburg, Pennsylvania, U.S.A., 13th May, 1885; 6 years.

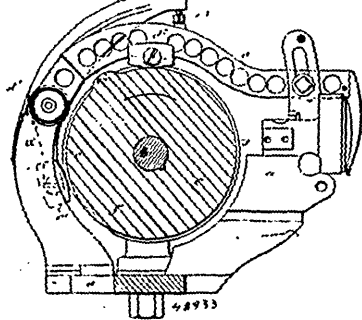
*Claim.*—1st. In a printing telegraph, a shaft which has affixed thereon a wheel with alphabetical letters and numeral characters arranged around its periphery, suitable means for revolving the same, in combination with a series of wheels, each of which has an equal number of teeth, and intermediate spaces, the teeth of the series relatively arranged in oblique lines across the faces of the wheels, and advancing beyond each other, like a flight of stairs. 2nd. In a printing telegraph a shaft which has thereon a wheel with alphabetical letters and numeral characters arranged around its periphery in combination with a series of wheels each of which has an equal number of radial teeth, and in addition thereto a number of prominent inclined slides arranged obliquely to the axis and plane of said wheels. 3rd. In a printing telegraph a revoluble shaft provided with a series of wheels each of which has an equal number of radial teeth, and in addition thereto, a number of prominent inclined slides arranged obliquely to the axis and plane of said wheels, in combination with a finger adapted to move across said wheels and engage them separately for the purpose of checking and controlling their rotation. 4th. In a printing telegraph a revoluble shaft provided with a series of spacing wheels, each of which has an equal number of radial teeth arranged at equidistant points around

the peripheries of said wheel, and in addition thereto a number of prominent inclined slides that occupy parallel positions to each other obliquely to the axis and plane of said wheel, in combination with a series of circular selecting discs provided with radial teeth arranged in different predetermined positions, a series of transverse depressions that coincide in point of relative position to the several inclined projecting slides on the spacing wheels, and a pivoted finger adapted to move across said selecting discs, and engage them separately and return to its first and original position. 5th. In a printing telegraph a series of spacing wheels and a series of selecting discs of the construction shown and described, in combination with a separate finger for each spacing wheel, said finger having a downward movement to and from their respective wheels and selecting discs, but so supported on and by a shaft as that a transverse movement of one finger will effect a like result of both in the same direction. 6th. In a printing telegraph, a series of spacing wheels, each of which has an equal number of teeth, and a number of inclined slides arranged as shown and described, in combination with a hook ended finger for controlling the rotary movement of said spacing wheels, a downwardly extending arm which extends from a forwardly incline at its lower portion, an armature bar from the bottom of which projects a rod that will act upon said inclined arm and force it backward, on a descent of said armature bar and thereby draw the finger free from the spacing wheels and prevent its return until released by an upward movement of said armature. 7th. In a printing telegraph a revolving shaft provided with a series of spacing wheels which have radial teeth arranged at equidistant points around their peripheries, and in addition thereto a number of prominent inclined slides that occupy parallel positions to each other obliquely to the axis and plane of said wheels and engage them separately, and a lateral or side movement in one direction by the action of the inclined slides upon said finger, a series of circular selecting discs provided with radial teeth arranged in different predetermined positions, a series of transverse depressions that coincide in point of relative position to the several inclined projecting slides on the spacing wheels, a finger adapted to engage said selecting discs and pass transversely through the depressions therein, and across the same by a slide on the spacing wheels coming in contact with the finger to force both fingers in the same direction, a downwardly extending arm attached to the finger of said selecting disc, a spring secured to the lower portion of said arm, a pin projecting sideways from an armature bar that will on its downward movement press upon said spring and force the finger of the selecting discs out of contact therewith, and on passing said spring permit said finger to return to its former position on the selector before the upward movement of said armature bar. 8th. In a printing telegraph, the combination of a type wheel with a series of spacing wheels, and selecting discs, a finger adapted to control and check the rotation of said spacing wheels, a finger that will control and govern the rotary action of said selecting discs, an armature of an electro-magnet, that on being energized will draw down said selecting discs, spacing wheels and type wheel a sufficient distance to cause said type wheel to make an impression, a strip or sheet of paper properly arranged to receive such impression. 9th. In a printing telegraph, the combination of a type wheel spacing wheels and selecting discs, a finger adapted to control and check the action of said spacing wheels, a finger that will control and govern the rotary action of the selecting discs, an armature of an electro-magnet that on being energized will cause said fingers to so time their movements as that on each electrical transmission of a signal the said spacing wheels and selecting discs will rotate, be controlled and checked at proper positions to bring a letter or numeral on said type wheel corresponding to said signal, around and stop at any desirable predetermined point. 10th. A telegraphic instrument constructed and adapted to transmit and receive Morse telegraphic signals, and translate the same into alphabetical letters and numeral characters, and separately print them, in combination with an electrical generator, a main line of transmission, a polarized relay consisting of a permanently magnetized pivoted bar arranged between the poles of two electro-magnets, each having opposite polarities, and in the main line a non-magnetic bar pivoted to the free end of the magnetic bar, an iron armature attached to the non-magnetic bar, an electro-magnet also in the main line for actuating said armature by electrical impulses sent along the main line whereby said non-magnetic bar at each electrical impulse is brought in momentary contact with points in the circuit of a local battery to produce like impulses in said local circuit. 11th. A telegraphic instrument constructed and adapted to transmit and receive Morse signals and translate the same into alphabetical letters and numeral characters, and separately print them, in combination with a suitable electrical generator, a main line of transmission, a polarized relay consisting of a permanently magnetized pivoted bar arranged between the poles of two electro-magnets forming part of the main line, a non-magnetic bar connected to the permanently magnetized bar, an iron armature attached to the non-magnetic bar, an electro-magnet for actuating said iron armature, a local circuit

and battery having no electrical communication with the main line, but in such relative position to the non-magnetic bar of the polarized relay as that a change of polarity in the magnets of said relay will operate to open and close said local circuit. 12th. A telegraphic instrument constructed and adapted to transmit and receive Morse signals and translate the same into alphabetical letters and numeral characters, and separately print them in combination with a suitable electrical generator, a main line of transmission, a polarized relay consisting of electro-magnets of different polarities arranged in and forming part of said main line, a permanently magnetized bar pivoted so as to swing between said electro-magnets, a non-magnetic bar pivoted to the magnetic bar, an iron armature affixed to the non-magnetic bar, two adjustable points, one of which is insulated and between which the non-magnetic bar is adapted to swing, a spring to draw said non-magnetic bar toward and against said insulated point, an electro-magnet forming part of the main line and in such proximity to the armature on the non-magnetic bar as to produce in the same a vibrating movement corresponding to an electrical impulse sent over the line of communication without effecting the position of the magnetized bar forming part of said polarized relay. 13th. A telegraphic instrument constructed and adapted to transmit and receive Morse signals and translate the same into alphabetical letters and numeral characters and separately print them in combination with a main line of communication, a polarized relay of the character described, a local electrical circuit constructed and adapted to operate substantially as described, an electrical battery for making the main line, a wire that connects the copper or positive pole of said battery to a contact point under a suitable key 65, a wire that connects the negative pole of said battery to a point at the top of said key to the main line, a wire which connects a contact point under the opposite end of the key 66, to a similar point back of said under closed key lever 70, a wire from the same point connecting it to the zinc or negative pole of the battery, a wire which connects a point under the forward end of said key lever 70, to the positive pole of the battery and a wire one end of which terminates in the earth and its other end in said key lever 70, which systematized arrangement of wires and lever enables an operator to suddenly change the polarity of the polarized relay, and thereby bring into action such portions of the local circuit as may be required to operate separately the selecting apparatus and the printing device.

#### No. 44,933. Wax Thread Sewing Machine.

(Machine à coudre.)

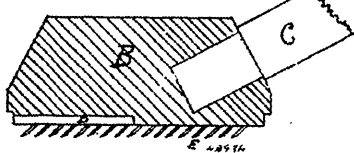


Francis Joseph Fresse, Montreal, Quebec, Canada, 13th May, 1895; 6 Years.

*Claim.*—1st. In a wax thread sewing machine, having single leader cams with levers operated thereby, the combination with such levers of positive cam and lever mechanism for maintaining them in certain continuous contact with such cams, for the purpose set forth. 2nd. In a wax thread sewing machine, having a single leader cam and lever operated thereby, the combination with such lever, of a second convex cam, and means intermediate of the latter cam and the lever and acted upon by such second cam to positively operate such lever, for the purpose set forth. 3rd. The combination of two single leader cams, a main lever suitably fulcrumed and bearing upon one of said cams, and a secondary double armed lever suitably fulcrumed and having one arm bearing upon the second cam and the other arm bearing upon the main lever, for the purpose set forth. 4th. In a wax thread sewing machine, the combination with the operating single leader cam and the lever for the thread lifter and means for operating said cam, of a secondary single leader cam, means for operating same, and a secondary double armed lever, one arm of which engages and is operated by said secondary single leader cam and the other arm adapted to bear upon the lever for the thread lifter, for the purpose set forth. 5th. In a wax thread sewing

machine, the combination with the operating single leader cam and the lever for the thread lifter, and means for operating said cam, of a secondary single leader cam, means for operating same, a secondary double-armed lever, one arm of which engages and is operated by said secondary single leader cam, and the other arm adapted to bear upon the thread lifter, lever and means for taking up the wear between said levers, for the purpose set forth.

**No. 48,934. Carpet Stretcher. (Etendeur de tapis.)**

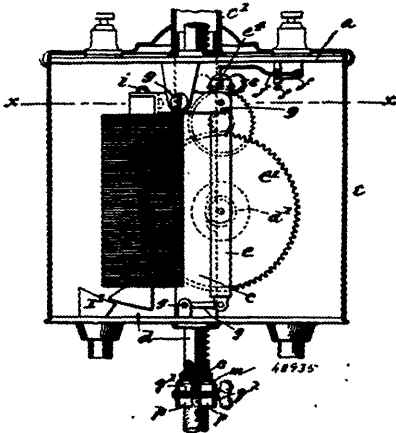


John R. Lyon, Seaforth, Ontario, Canada, 13th May, 1895; 6 years.

*Claim.*—A carpet stretcher comprised of handle C, block A, leather D and wire staples E, all arranged and combined substantially as and for the purpose set forth.

**No. 48,935. Electric Arc Lamp. (Lampe électrique à arc.)**

Fig. 2.

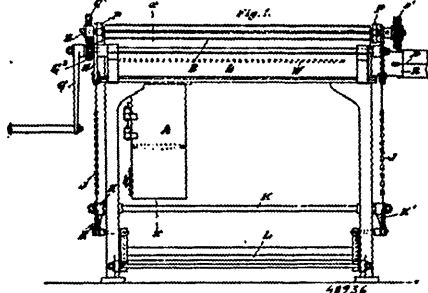


Peter Kirkegaard, Brooklyn, New York, U.S.A., 13th May, 1895; 6 years.

*Claim.*—1st. In an arc lamp, the combination of a lever pivoted between its extremities, an electro-magnet located in a circuit shunting the arc and attached to one end of said lever, a frame carrying a gear train attached to other end of said lever, and a stationary armature for said electro-magnet, substantially as and for the purpose set forth. 2nd. In an arc lamp, the combination of a lever pivoted between its extremities, an electro-magnet located in a circuit shunting the arc and attached to one end of said lever, a frame carrying a gear train attached to the other end of lever, a carbon rod, said frame arranged to be always parallel to the carbon rod and the gear train in engagement with said rod and a stationary armature for said electro-magnet, substantially as described. 3rd. In an arc lamp, the combination of an electro-magnet suspended from a pivotal point located above it, a frame carrying a train of gear, the magnet and frame counter-balancing each other, and a stationary armature for the magnet, substantially as described. 4th. In an arc lamp, a frame carrying a gear train controlled by an escapement, said frame being pivotally mounted on parallel arms, said arms being pivoted to fixed supports, whereby the frame will always be parallel to a given plane, in combination with an electro-magnet located in the shunt circuit of the lamp and attached to the frame, and an armature permanently fixed with respect to the magnet, substantially as described. 5th. In an arc lamp, a carbon holder consisting of a U-shaped yoke pivotally connected with the end of the carbon rod, in combination with two jaws pivoted respectively to the arms of said yoke, for the purpose set forth. 6th. In an arc lamp, a carbon holder consisting of a U-shaped yoke pivotally connected with the end of the carbon rod, in combination

with two jaws pivoted respectively to the sides of the yoke, and means for closing and opening said jaws, for the purpose set forth.

**No. 48,936. Ironing Machine. (Machine à repasser.)**

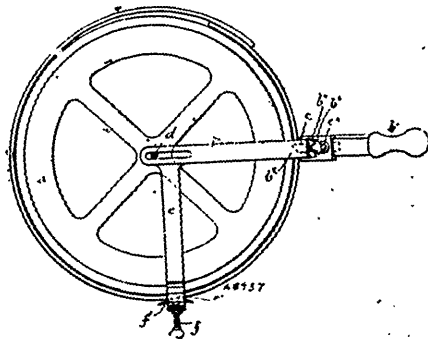


August Metzger, 10 Hohenstrasse, Homburg, v. d. Höhe, Germany, 13th May, 1895; 6 years.

*Claim.*—1st. An ironing machine having a working endless band D, of felt or other similar material passed over a roller C', which is carried at one end of the machine on oscillating levers H, and is rotated by means of gear-wheels G', G'', said oscillating levers being actuated by treadle mechanism chains J, levers H', and rods M, in such a manner that the roller C', can be raised up from or lowered down on the ironing plate, without interrupting the working of the driving-gear, constructed and arranged substantially as described. 2nd. In an ironing machine of the class described, the combination of the driving shaft having arms H', on the driving shaft, the oscillating ends of which carry a roller C, rotated by the shaft g, which latter is turned by the gear-wheels G', G'', said arms being securely connected with levers H, so that an endless band D, stretched over rollers C, C', can be easily raised up from or brought down on the ironing plate, constructed and arranged substantially as described. 3rd. In an ironing machine of the class described, the combination with the endless band, of a series of rollers arranged at determined distances apart on the common bearing plates P, of the rollers C, C', for the purpose of obtaining a uniform pressure of the endless band D, on the ironing plate H, constructed and arranged substantially as described.

**No. 48,937. Cheese Box Trimmer.**

(Machine pour finir les boîtes à fromage.)

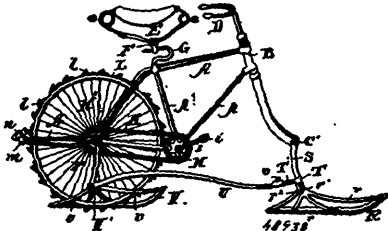


Reuben Augustus Oakley, Montreal, Quebec, Canada, 13th May, 1895; 6 years.

*Claim.*—1st. A cheese box trimmer or appliance in the form of a lever extending across the edge of the cheese box, having a pivoting point within the box, carrying a cutting blade at a point outside of such box and adapted to be swung or rotated about same with the cutting edge in cutting contact therewith. 2nd. A cheese box trimmer or appliance in the form of a bearing plate adapted to rest upon the cheese within the box, a lever extending across the edge of such box, having a pivoting or fulcrum connection with such bearing plate, carrying a cutting blade at a point outside of same, and adapted to be swung or rotated about the box with the cutting edge in cutting contact therewith. 3rd. A cheese box trim-

mer or appliance in the form of a lever extending across the edge of the cheese box having a pivoting point within the box carrying a cutting blade at a point outside of such box, a guide arm extending across the edge of the cheese box at an angle to said lever and the whole adapted to be swung or rotated about the box with the said cutting edge in cutting contact therewith. 4th. A cheese box trimmer or appliance in the form of a lever having a pivoting point within the box, carrying a cutting blade and adapted to be rotated or swung about same with the cutting edge in cutting contact therewith. 5th. A cheese box trimmer or appliance in the form of a lever having a pivoting point within the box, carrying a cutting blade capable of vertical adjustment and adapted to be rotated or swung about same with the cutting edge in cutting contact therewith. 6th. A cheese box trimmer or appliance in the form of a lever having a pivoting point within the box, carrying a cutting blade and capable of horizontal adjustment and adapted to be rotated or swung about same with the cutting edge in cutting contact therewith. 7th. A cheese box trimmer or appliance in the form of a lever having a pivoting point within the box, carrying a cutting blade capable of vertical and horizontal adjustment and adapted to be rotated or swung about same with the cutting edge in cutting contact therewith. 8th. In a cheese box trimmer or appliance, the combination of bearing plate *a*, adapted to rest upon the top of the cheese within the box, a lever *b*, pivotally connected with said plate extending across the edge of the box recessed to accommodate such edge, a cutting blade *c*, carried by said lever at a point outside of said box, a guide arm *e*, extending from said lever at an angle thereto across the edge of the box and bent at its outer end to form an accommodating recess for such edge, and an adjusting screw *f*, carried by end of said guide bar to bear upon the surface of the box, the lever and arm adapted to be swung or rotated about the box with the cutting blade in cutting contact therewith.

#### No. 48,938. Ice Velocipede. (Velocipède à patins.)



Alfred Thomas Firth, Chicago, Illinois, U.S.A., 13th May, 1895; 6 years.

*Claim.*—1st. In an ice velocipede, the combination with a frame steering rod, saddle and driving mechanism of a propelling wheel journaled in a swinging frame, the pivotal point of which is in the rear of said wheel, and an adjustable frame upon which said swinging frame is pivoted, substantially as described. 2nd. In an ice velocipede, the combination with a frame mounted on runners and a driving sprocket journaled on said frame, of a propelling wheel journaled in a swinging frame and an adjustable frame to which said swinging frame is attached, substantially as described. 3rd. In an ice velocipede, the combination with the organized mechanism of a velocipede mounted on runners, of a sprocket-wheel and driving chain, a toothed propelling wheel, a swinging frame in which said wheel is journaled, adjustable clips to which the swinging frame is pivoted, and an adjustable frame carrying said clips and secured to the main frame of the machine by bolts, whereby the pressure imposed upon the propelling wheel may be regulated, substantially as described. 4th. In an ice velocipede, the combination of the frame, the driving mechanism and the steering mechanism of a bicycle, with the supplementary steering rod *S*, the runners *R* and *V*, and the connecting frame sections *U* and *P*, the frame *N*, swinging frame *M*, and propelling wheel *L* journaled on said swinging frame, substantially as described. 5th. An attachment for transforming a safety bicycle into an ice velocipede, consisting of a supplementary steering rod *S*, a supplementary steering lead *T*, a frame consisting of the sections *N*, *P* and *U*, runners *R* and *V* attached to said frame, and a propelling wheel *L* journaled in a swinging frame *M*, substantially as described. 6th. An attachment for transforming a safety bicycle into an ice velocipede, comprising a supplementary frame adapted to be attached to the main frame of the machine, runners secured to said supplementary frame, a propelling wheel adapted to receive motion through a driving chain from the driving wheel and pedals, the pivotal points of the swinging frame being in the rear of the journals of the propelling wheel, substantially as described. 7th. In an ice velocipede, the combination with the main and supplementary frames and the runners, of the adjustable frame *N*, secured to the main frame, the clips *a, b, c*, on the frame *N*, the swinging frame *M* pivotally attached to said clip, the propelling wheel *L* journaled in the swinging frame, substantially as described. 8th. In an ice velocipede, the combina-

tion with the frames, the runners and the driving mechanism, of a propelling wheel *L*, having the bent plates *P*, *U*, formed with integral teeth *t*, *l*, produced by the crimping plates, substantially as described.

#### No. 48,939. Inward Flow Turbine. (Turbine à immersion intérieure.)



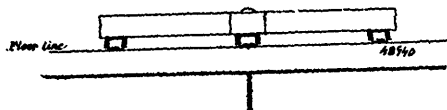
Albert Singrün, Epinal, France, 13th May, 1895; 6 years.

*Claim.*—1st. An inward flow turbine, each blade or vane *A* of which has cast integrally with it at its upper part a heel-piece *D* which fits in a groove in the blade-carrier *B*, fixed therein by two or more screws, and is of such a size and shape that the whole of the heel-pieces constitute together, in the groove of the blade-carrier, a complete circular ring, substantially as described and shown. 2nd. In an inward-flow turbine, a pivot box *E*, which is formed in its underside for the purpose specified, with a diametrical groove *L* in which engage the end of two screws *G*, substantially as described and shown. 3rd. In an inward-flow turbine, the combination of a cross-piece or support *H* of the arms or ribs of which are rounded at the bottom in transverse section, with the discharge tube *J*, the cross-pieces *O* and of lugs *M* and *N* on the cross-pieces *H* and the bottom of the tube *J* respectively, substantially as described and shown. 4th. In an inward-flow turbine, the combination of the upper distributor-ring *P* cast with its guide blades and well rounded on its exterior, the lower flange *Q* of the casing, the movable ring *U*, and the annular projection *V* attached to the gate *T*, substantially as described and shown. 5th. In an inward-flow turbine, a movable guide-blade arranged to slide between the two rings of the distributor to permit the rotary blade wheel to be inspected, substantially as described. 6th. In an inward-flow turbine, the casing *R*, which is of less height than hitherto usual and the roof or cover of which carries, in the middle and projecting inwardly, a stuffing-box and at two diametrically opposite points projections *t* in the shape of half pedestals, on which rests the horizontal gate-shaft *a*, whether or not one of these projections extend further outside the casing than the other in order to obviate the necessity of supporting the said shaft by means of a bracket, substantially as described and shown. 7th. In an inward-flow turbine, the combination of rack-boxes *k*, the lower parts of which are arranged to form pedestal caps for the shaft *a*, to cover the rack-pinions with apertures in the casing, the faces *j*, of which serve as supports and guides for the planed backs of the racks *s*, whether or not one of the boxes *k*, has at its lower part and above the corresponding projection *t*, of the casing, a projection *s*, forming a footstep for the vertical shaft *a*, of the gate-operating mechanism, and at its upper part and at the same side a collar *l*, forming a guide for the shaft *a*, substantially as described and shown. 8th. In an inward-flow turbine, the combination of the pulley *g* and toothed wheel *g'*, made in one piece, the trunion bearing *u* and the supports allowing of the adjustment of the position of the shaft *a*, substantially as described and shown. 9th. In an inward-flow turbine, the support with lugs which is adjustable about the axis of the shaft *a*, by means of the bush *l*, that loosely embraces the vertical shaft *a*, at the upper end of which is fixed the wheel *g*, whether level or worn gear to used and whether or not the said support is furnished with a shell *k*, adapted to serve as an oil-bath in which the worm *p*, may

dip, substantially as described and shown. 10th. In an inward-flow turbine, the loop and trunion-bearing *u* adapted to turn freely in the supporting-collar *o*, substantially as described and shown. 11th. In an inward-flow turbine, the box *b*<sup>1</sup>, arranged centrally with regard to, and extending into the casing, and provided with the cover *m*, made in two separate parts and with the wedges *z*, adapted to be operated by the screws *n*, to tighten up the wooden steps or bearing blocks against the main shaft of the turbine, substantially as described and shown. 12th. My improved turbine substantially as described with reference to and shown in the drawings, whether it be provided with heel-pieces, substantially as herein shown.

**No. 48,940. Barrel Truck. (Camion pour barils.)**

FIG 1.



Edward Atherton Smith, Saint John, New Brunswick, Canada, 13th May, 1895; 6 years.

*Claim.*—A barrel truck comprising a rectangular platform, a metallic roller under each of the four corners of said platform, a platform, a flattened case of metal or suitable hard material, secured to the top centre of the said platform, as and for the purpose set forth.

**No. 48,941. Process of Making Enamelled Sheet Metal Articles, Etc. (Procédé pour la fabrication d'articles en feuilles de métal émaillé, etc.)**

Edward Piffmann, Schwelm, Westfalen, Germany, 13th May, 1895; 6 years.

*Claim.*—1st. An improved process of making spotted or designed enamelled hardware or sheet metal articles with a single coating of enamel in which coloured spots, designs or the like, are made on the enamel of known composition and which is applied and dried in the customary manner, by applying a suitable solution of metallic salt with a sponge or the like to the enamel coating, said spots, etc., being then burnt together with the enamel, substantially as described. 2nd. As a new article of manufacture spotted or designed enamelled hardware articles provided with a coating of enamel with coloured spots designs or the like applied on the enamel, substantially as set forth.

**No. 48,942. Washing Compound.**

(Composition pour laver.)

Cleophas Dubrue, Montreal, Quebec, Canada, 14th May, 1895; 6 years.

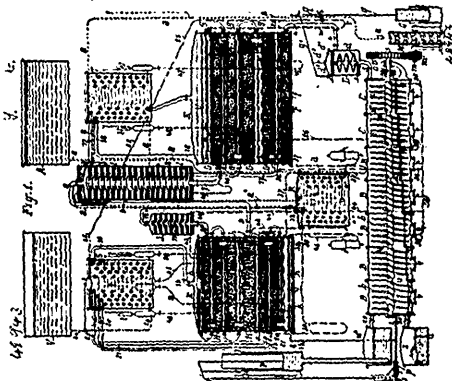
*Claim.*—1st. The washing compound composed of the following elements substantially in the proportions set forth, washing soda, unslaked lime, borax, indigo, charcoal and ammonia. 2nd. The washing compound composed of the following elements, substantially in the proportions set forth, washing soda, unslaked lime, borax, indigo, charcoal, ammonia, in combination with cinnamon, cloves, ratalpha or other essence.

**No. 48,943. Distillation. (Procédé et appareil pour la distillation.)**

Odilon Perrier, Paris, France, 14th May, 1895; 6 years.

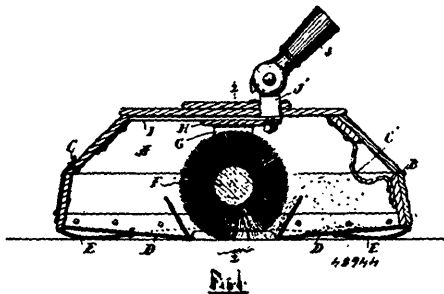
*Claim.*—1st. A process of distillation and of rectification applicable to all volatile products in which the production of vapour is effected at a low temperature in one or several horizontal or inclined cylinders divided over its length into compartments by partitions, the said partitions being cut away to form overflows having heights progressively diminishing which maintain differences in level from one compartment to the other for the purpose of exposing smaller and smaller volumes of liquid to contact with a mass of heating vapour larger and larger in bulk and hotter; the said cylinder is traversed lengthwise by a rotating shaft on which are fixed helicoidal palettes preferably perforated which agitate the liquid and throw the thick matters in suspension in the liquid from one compartment into the next to avoid their forming a deposit, substantially as described and shown and for the purposes specified. 2nd. A process of distillation effecting under continuous operation the automatic fractional separation and rectification of all volatile products by forcing the distilled vapours to traverse successive superposed horizontal analysers formed either of a divided conduit in which the lower compartment is filled with beads whilst the liquid constituting the condensing bath is poured into the upper bath of a single horizontal or inclined tube filled with beads and provided at its upper part with a multi-tubular body in which is the liquid constituting

the condensing bath, so that the vapours to be fractionally distilled are exposed in each horizontal analyser to contact with the products condensed by the condensing bath annexed to each analyser, substau-



tially as described and shown. 3rd. The parts as a whole constituting my apparatus for distilling, fractionating and rectifying volatile liquids such as alcohols, petroleum, tars, resins, essences, fatty bodies, acetic acid, etc., as described and shown for the purposes specified.

**No. 48,944. Carpet Sweeper. (Balayeuse de tapis.)**



T. Stewart White, Thomas Friant, Gains W. Perkins and Charles J. Reed, assignors of Silas Horatio Hayward all of Grand Rapids, Michigan, U.S.A., 14th May, 1895; 6 years.

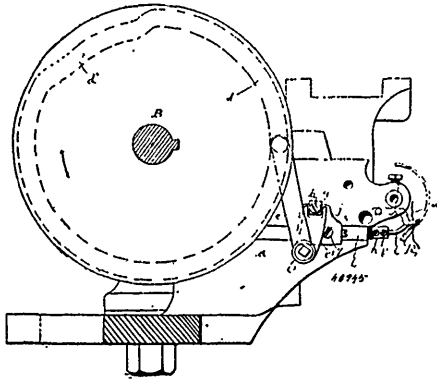
*Claim.*—1st. In a carpet sweeper, in combination with a cylindrical brush, adapted to rotate in contact with the carpet, and a case hangers in which said brush is journaled, a bar to which said hangers are attached, flexible strips connecting said bar and case and a handle socket attached to said bar, substantially as described. 2nd. In a carpet sweeper, a case divided in a horizontal plane, and having hinges and a catch, a strap connecting said divided parts at the hinged side, fixed dust pans attached to the lower part of said case and having their inner angles adjusted to move close to the carpet, a rotary brush between said pans, hangers for said brush, flexible connections between said hangers and the upper part of said case, and a handle socket connected to said hangers, substantially as described. 3rd. In a carpet sweeper, in combination with a case and a brush journaled in hangers, flexible connections between said hangers and the case, a handle socket connected to said hangers, fixed pans in said case at each side of said brush, and slopes on said case near each corner thereof, substantially as described. 4th. In a carpet sweeper, a case horizontally divided and hinged, a strap connecting the two parts of said case at the hinged side, shoes near the respective corners of said case, fixed pans having their inner angles close to the carpet, a rotary between said pans, hangers for said brush attached to bar in the upper part of the case, and a stud attached to said bar and passing through an opening in the case, and a handle socket pivoted to said stud, substantially as described.

**No. 48,945. Sewing-Machine. (Machine à coudre.)**

Francis Joseph Freese, Montreal, Quebec, Canada, 14th May, 1895; 6 years.

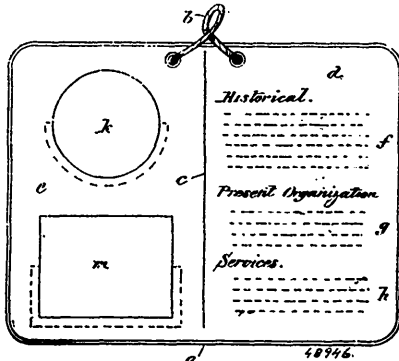
*Claim.*—1st. In a sewing-machine having suitable stitch forming

mechanism, a thread retainer, a part of which is movable, with means for positively actuating such movable part to retain and release the thread. 2nd. In a sewing-machine having suitable stitch and loop forming instrumentalities, a loop retainer in the form of an enclosure, part of which is movable to open and close same, with



means for positively actuating the movable part to open and close such enclosure. 3rd. In a sewing-machine having suitable stitch and loop forming instrumentalities, a loop retainer composed of two retaining parts, one stationary and the other movable, the latter having positive movements, into and out of contact with the stationary part independently of the thread introduced and withdrawn, with means for positively actuating said movable part to open and close such enclosure. 4th. In a sewing-machine having suitable stitch and loop forming instrumentalities, a loop retainer composed of two retaining parts, one stationary and the other movable, the latter having positive movements into and out of contact with the stationary part with cam lever and slide mechanism for positively moving the said movable part into and out of contact with the stationary part as set forth. 5th. In a sewing-machine having suitable stitch and loop forming instrumentalities, the loop retainer composed of the stationary part having a projecting end portion substantially parallel with the line of movement of the thread as it is carried into the retainer by the looper and out by the needle, and a part movable substantially at right angles to and into and out of contact with said projecting end portion with means for moving same, for the purposes set forth. 6th. In a sewing-machine having suitable stitch and loop forming instrumentalities, the combination with the loop retaining parts proper, the one stationary and the other movable, of a sliding carrier bar, for the movable part carried in the frame, a movable guide plate to which such slide bar is pivotally connected, a driving cam disc and a lever suitably located between said disc and guide plate, connected with each and operating the latter as and for the purposes set forth.

**No. 48,946. Biographical and Statistical Tablet.**  
(Tableau biographique et statistique.)



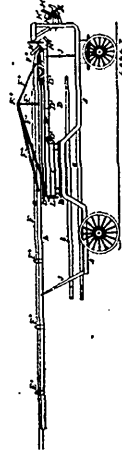
Adolph Petersen, St. John, New Brunswick, Canada, 14th May, 1895; 6 years.

*Claim.*—1st. The improved biographical and statistical tablet

having spaces to respectively contain descriptive biographical and statistical matter of an organization and photographic or other illustrations of the principal personages thereof, and of the building occupied or owned by such organization for the purpose set forth. 2nd. The improved biographical and statistical tablet divided into sections *d, e*, the former sub-divided into horizontal panels or spaces *f, g, h*, having suitable headings as shown or their equivalents, and the section *e*, having the circular panel *k*, and rectangular panel *m*, containing photographic illustrations, substantially as described and for the purpose set forth.

**No. 48,947. Fire Ladder Apparatus.**

(Appareil pour échelles d'incendie.)

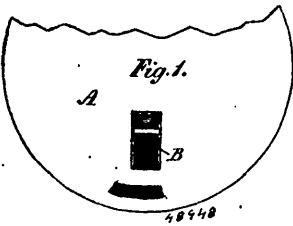


The Horton Fire Ladder Company, assignee of William James Horton, all of Halifax, Nova Scotia, Canada, 16th May, 1895; 6 years.

*Claim.*—1st. In a fire ladder apparatus, the combination of a bent frame, a turntable mounted thereon, supporting a rocking platform, on which is pivoted a tilting platform, a main ladder with an extension ladder connected thereto, as set forth. 2nd. In a fire ladder apparatus, the combination of a bent frame, a turntable mounted thereon, supporting a rocking platform, on which a tilting platform is pivoted, a main ladder pivoted to the tilting platform, and extension ladder, and hand ladders supported between the bent sides of the frame, as set forth. 3rd. In a fire ladder apparatus, the combination of a bent frame, a turntable mounted thereon, supporting a rocking platform pivoted to a tilting platform, a main extension ladder pivoted thereto, and levelling jacks at the ground end of the tilting platform, as set forth. 4th. In a fire ladder apparatus, the combination of a bent frame, a turntable mounted thereon supporting a rocking platform with suitable gear for rocking it, on which is pivoted a tilting platform with a main extension ladder pivoted thereto, as set forth. 5th. In a fire ladder apparatus, the combination of a bent frame, a turntable mounted thereon supporting a rocking platform on which a tilting platform is pivoted, a main extension ladder pivoted thereto, as set forth. 6th. In a fire ladder apparatus the combination of a bent frame, a turntable mounted thereon supporting a rocking platform on which a tilting platform is pivoted, a main extension ladder pivoted thereto, and side braces to the main ladder expanding towards the base, as set forth. 7th. In a fire ladder apparatus, the combination of a bent frame, mounted on wheels, a locking brake adapted to lock the wheels, a turntable supporting a rocking platform on which a tilting platform is pivoted, a main extension ladder pivoted thereto, as set forth. 8th. The combination with a ladder supporting turning, tilting and rocking platform, of screws, nuts, connecting rods, level gears, and crank-shaft adapted to raise and lower the main ladder, as set forth. 9th. The combination with a ladder supporting, turning, tilting and rocking platform, of hand wheel, shafts, train of gear, bevel gear, screw, pivoted nut, and trunnions adapted to rock the platform, as set forth. 10th. The combination, with a ladder supporting, turning, rocking and tilting platform, of adjusting jacks and shoes adapted to adjust the ground end of the platform, and to laterally adjust the top of the ladder. 11th. In a fire ladder apparatus, hand ladders made with the inside thicker towards the middle and tapering towards each end, as set forth. 12th. The combination, with an extension ladder of brackets and rollers, as set forth. 13th.

The combination with a main ladder pivoted to a turning, tilting and rocking platform, and an extension ladder of suitable winding gear and rope adapted to raise and lower the extension ladder.

**No. 48,948. Pattern for Moulding Stove Plates or Lids.**  
(*Patron pour mouler les plaques et couvercles de potes.*)

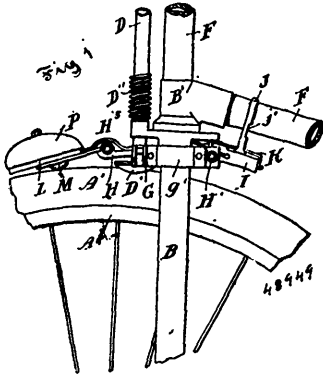


The James Smart Manufacturing Company, assignees of William John Stevenson and William Bruce Thomson, all of Brockville, Ontario, Canada, 16th May May, 1895; 6 years.

*Claim.*—A stove lid or plate pattern having a core seat B, and a sliding bar D, arranged between guide strips C, C, and adapted to be projected through the core seat and across the same, and be withdrawn, as and for the purpose set forth.

**No. 48,949. Bicycle Lock and Alarm.**

(*Serrure et cloche d'alarme pour bicycles.*)

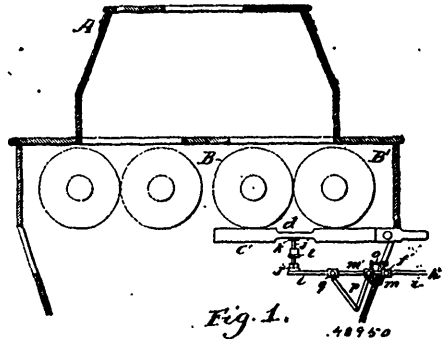


Edward Avery Parson, Charles Edmond Parson and George William Parson all of Ottawa, Ontario, Canada, 16th May, 1895; 6 years.

*Claim.*—1st. The combination with the fork, head piece and brake of a bicycle, side plates  $g, g'$ , a pivot pin  $H$ , a flat plate  $H, h, h'$ , pivotally supported in said plates, a spring  $H'$ , a lock  $I$ , a staple  $J$ , a hinged extension plate  $L$ , springs  $H'$ , a friction wheel  $M$ , a spur-wheel  $M'$ , a pinion  $n$ , a crank  $n'$ , a hammer  $N$  and a bell  $P$ , substantially as set forth. 2nd. In a bicycle alarm, the combination with the fork, head piece and brake rod of a bicycle, of bearing plates  $g, g'$ , a plate  $H, h, h'$ , carried pivotally on said plates, a spring  $H'$ , a hinged extension plate  $L$ , springs  $H'$ , a bell  $P$ , a friction roller  $M$ , a spur-wheel  $M'$ , a pinion  $n$ , and a pivoted hammer  $N$ , substantially as set forth. 3rd. In a bicycle, the combination of a plate  $H, h$ , pivotally supported, a spring  $H'$ , upon the pivot of said plate, a forked front end  $h'$ , on said plate, a hinged extension plate  $L$ , springs  $H'$ , a bell  $P$ , and means of operating the same by contact with the wheel-tire, substantially as set forth. 4th. In a bicycle lock, the combination of a plate  $H, h$ , a spring lock  $I$  secured to the rear end of said plate, a staple  $J$ , notches  $j$ , in the shanks of said staple and a spring  $K$ , substantially as set forth. 5th. In a bicycle lock, the combination of plates  $g'$ , a flat plate  $H, h'$ , pivotally supported by a transverse pin, a spring lock  $I$ , secured to the rear end of said plate, and a staple  $J$ , substantially as set forth. 6th. In a foot rest for a bicycle, the combination with a tine of the fork of two parallel plates bent to fit on said tine and their forward parts bent out at a right angle a little distance apart, a connecting piece at the end and bolts or rivets connecting said two plates and clamping them on said tine, substantially as set forth.

**No. 48,950. Gauge for Rolls of Roller Mills.**

(*Gauge pour rouleaux de moulins à rouleaux.*)



John Steel Cameron and Addison Weeks Igleheart, both of Evansville, Indiana, U.S.A., 16th May, 1895; 6 years.

*Claim.*—1st. A gauge for the rolls of roller-mills consisting of two gauge rods adapted for contact at four points on said rolls, said rods being loosely connected together at one end by a pivot parallel with the plane of the rods whereby the latter are capable of vertical and relative adjustment, and an indicator on said rods. 2nd. A gauge for the rolls of roller-mills consisting of two gauge rods adapted for contact at four points on said rolls, a lateral screw threaded pin on one rod passed through a vertical slot in the other rod whereby the rods are capable of vertical and relative adjustment, and a thumb nut for said pin. 3rd. A gauge for the rolls of roller-mills consisting of two gauge rods adapted for contact at four points on said rolls, each of said rods having an offset terminating in an indicator, a threaded pin in one of the off-sets passed through a slot in the other off-set and a thumb nut for the pin. 5th. In a combination, a gauge for the rolls of roller-mills consisting of a gauge rod loosely connected together, and means for elevating said rods to form a contact at four points on said rolls. 6th. In combination, with two gauge rods loosely connected together, of a device for elevating said rods consisting of a bar adapted to be secured to a part of the mill and carrying a bridge for supporting the rods and means for raising the bridge. 7th. In combination, with two gauge rods loosely connected together, of a device for elevating said rods consisting of a bar having a clamp for securing the same in position, a threaded standard carrying a bridge for supporting the rods, a nut on the standard and a spring between the nut and bridge. 8th. As a new article of manufacture, a gauge and an indicator for the rolls of roller-mills, consisting of two connected members adapted for application to the underside of the rolls when in motion, said members being separated horizontally for a portion of their length and means for permitting the relative adjustment of said members. 9th. A gauge for the rolls of roller-mills consisting of two rods loosely connected together, and adapted for contact at four points on said rolls, and an indicator adapted to be removably secured to said rods in different positions, for the purpose set forth. 10th. A gauge for the rolls of roller-mills consisting of two rods centrally connected but independently movable and adapted for contact at four points on said rolls, and an indicator consisting of two arms each pivotally connected to one end of each arm and adapted to be secured in different positions with reference to the rods, said arms being loosely connected together, all as and for the purpose set forth. 11th. A gauge for the rolls of roller-mills, consisting of two rods connected together centrally by a king bolt, but independently movable, the indicator consisting of the two arms having the bent portions and the indicator fingers, apertures in the arms and ends of the rod, and thumb screws for securing said rods and indicators in different relative positions, for the purpose set forth.

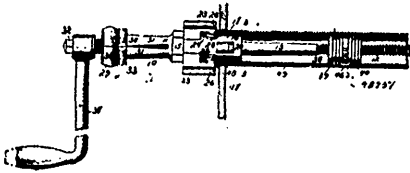
**No. 48,951. Boiler Tube and Expander.** (*Outil pour l'emboutissage et expansion de tubes de chaudières.*)

Daniel James McCormack, Balfour, and Alexander Cartues, Aspen, both of Colorado, U.S.A., 16th May, 1895; 6 years.

*Claim.*—1st. In a device of the class described, the combination of a head, beading and expanding rolls carried by the head, a mandrel in operative relation with the expanding rolls, and means for rotating the head and mandrel and simultaneously advancing the same at different rates of speed, substantially as specified. 2nd. In a device of the class described, the combination with a rotatable head carrying beading rolls and having interposed cavities, of ex-



padding rolls arranged loosely in said cavities and provided with tapered front ends, a mandrel extending through an axial bore in the said head and provided with a tapered portion in contact with the inner sides of said rolls, and means to simultaneously rotate and advance the mandrel and head at different rates of speed, substantially as specified. 3rd. In a device of the class described, the combination of a head provided with a central bore and communicating

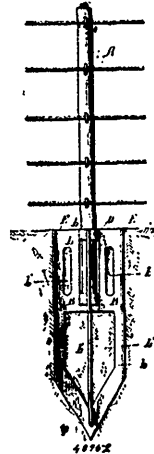


lateral recesses, expanding rolls loosely mounted in said recesses, a mandrel extending axially through the bore of the head and provided with a tapered portion in contact with said rolls, and means for rotating and feeding the mandrel simultaneously in the same direction at different rates of speed, substantially as specified. 4th. In a device of the class described, the combination with a head, bearing-rolls mounted thereon and expanding rolls carried thereby, of a mandrel extending axially through said head and having a tapered portion in contact with said expanding rolls and means for rotating the head and mandrel and simultaneously feeding the same forward in the same direction at different rates of speed, substantially as specified. 5th. In a device of the class described, the combination with a rotatable head provided with an axial bore, and a mandrel arranged in said bore and provided with a tapered portion, and means for feeding said mandrel and head simultaneously in the same direction at different rates of speed, of three bearing rolls arranged at regular intervals around the circumference of the head, and a corresponding number of expanding rolls arranged opposite the intervals between the bearing-rolls and extending outward beyond the bearing surfaces of the bearing rolls or slightly between the same, substantially as specified. 6th. In a device of the class described, the combination with a rotatable head, a mandrel fitting in an axial bore of said head, and means for feeding the mandrel and head simultaneously at different rates of speed, of a plurality of bearing rolls, a corresponding number of expanding rolls arranged at their outer ends between the bearing rolls, and means for communicating motion from the mandrel to the expanding rolls, substantially as specified. 7th. In a device of the class described, the combination with a mandrel, bearing rolls and means to operate the same, of sectional expansion feed nut provided with a central smooth bore to receive said mandrel, and a tapered wedge-block fitting slidably in a cavity in said feed-nut and provided with a threaded bore engaging a threaded portion of the mandrel, substantially as specified. 8th. In a device of the class described, the combination with a head, a mandrel, and means to operate the same, of a sectional feed-nut provided with a contraction spring and having a cavity tapered toward its terminals, and a tapered wedge-block fitting slidably in said cavity and provided with a threaded bore to engage said mandrel, substantially as specified. 9th. In a device of the class described, the combination with a mandrel, of a reversible expansion nut comprising separable spring-contracted sections and having an oppositely tapered cavity, and a wedge-block connected to said mandrel and fitting slidably in said cavity, substantially as specified. 10th. In a device of the class described, the combination with a mandrel, of a reversible expansion nut comprising separable sections provided with exterior oppositely inclined serrations and an interior oppositely tapered cavity, and a wedge-block connected to said mandrel and fitting in said cavity, substantially as specified. 11th. In a device of the class described, the combination with a head carrying bearing and expanding rolls, a mandrel extending axially therethrough and provided with a compensating thread and a tapered portion of engage the expanding rolls, and a feed-nut connected to the mandrel, of a sectional compensating nut connected to the head and adapted to engage said compensating thread, and means to operate said nut to cause engagement and disengagement thereof, substantially as specified. 12th. In a device of the class described, the combination with a threaded mandrel, of a head loosely fitted thereupon, a sectional nut connected to the head to engage the outer threaded portion of the mandrel, and a feeding device connected to the mandrel, substantially as specified. 13th. In a device of the class described, the combination with a threaded mandrel, a head rotatably fitted thereupon, and feeding devices connected to said mandrel, of a sectional nut provided with spring expansion arms attached to the said head, and a contracting-rod slidably fitted upon said arms, substantially as specified. 14th. In a device of the class described, the combination with a threaded mandrel provided with a tapered portion, a feed nut connected to the inner end of said mandrel and a head rotatably mounted upon the mandrel and provided with a nut which is threaded upon the outer end of the mandrel, of expanding rolls loosely mounted in said head with their inner sides in contact with the tapered portion of the mandrel and their outer sides projecting beyond the surface of the head, the diameter of each of said expanding rolls being equal to the average

diameter of the tapered portion of the mandrel, substantially as specified. 15th. In a device of the class described, the combination with a mandrel provided with a threaded outer end, a reduced threaded inner end, and an intermediate tapered portion, the pitch of the threads at opposite ends of the mandrel being the same, a head rotatably fitted upon the mandrel and provided with a nut threaded upon the outer threaded portion of the mandrel, expanding-rolls loosely mounted in the head in contact with the tapered portion of the mandrel, substantially as specified.

No. 44,952. Base for Fence Posts.

(Base pour pieux de clôtures.)



Melvin J. Baer and Edward J. Baer, assignees of John H. Cooper, all of Millford, Indiana, U.S.A., 16th May, 1895; 6 years.

Claim.—A fence post base having flanges at right angles to each other provided with open work as described, two collars integral with the said flanges for the reception of the post, the slot *d*, to receive a key to lock the post to the collar and the rounded beads on the edges of the flanges, all as and for the purpose set forth.

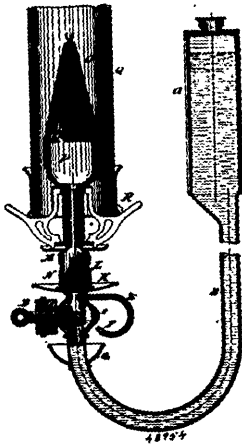
No. 48,953. Pipe Wrench. (Clé à écrou.)



The Paris Tool Manufacturing Company, assignees of William Houghton, both of Paris, Ontario, Canada, 16th May, 1895; 6 years.

Claim.—1st. In a pipe wrench, a double clip constructed with two openings to receive a toothed headed stem provided with ratchet teeth, to slide back and forth therein, the upper face of the lower portion of the clip having ratchet teeth cut thereon, the said portion elongated and terminating in two lugs which pass up on each side of the stem when inserted in the double clip, and a spring seat lock to lock the jaws at any desired distance apart, for the purpose specified. 2nd. In a pipe wrench, a double clip *A*, having openings *a* and *b*, ratchet teeth *c*, on the lower portion and terminating in the two lugs *f*, a stem *B*, having corresponding ratchet teeth *d*, made to slide in the clip portions *a* and *b*, and to engage with the ratchet teeth *c*, in the clip, the head of the stem *B*, having ratchet teeth *e*, at one eighth of an inch pitch off *a*, one and a half inch bevel, and a movable jaw head with a square pitch and an inward pitch of the teeth, constructed as shown and pivoted to the clip *A*, by a pin *D*, substantially as described. 3rd. In combination with the stem *B*, movable jaw, head *C*, and double clip *A*, of the recess *h*, in the clip, the seat lock *E*, constructed as shown with two bottom planes *a*, *o*, toe piece *g*, tip *h*, heel *k*, recess *l*, thumb-piece *m*, and a spiral spring *G*, let into the recess *l*, to operate the said seat lock to hold the ratchet teeth *c*, *d*, together, to lock the gripping jaws of stem and head at any desired distance apart, substantially as specified. 4th. In combination with the double clip *A*, and seat lock *E*, of the notch *g*, formed across the end of the rear portion of the clip, to receive the heel *k*, of the seat lock when drawn out to unlock the teeth, substantially as specified.

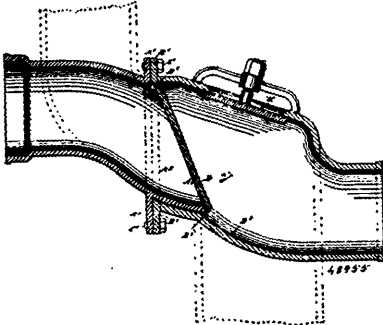
**No. 48,954. Oil Gas Lamp. (Lampe à gaz à l'huile.)**



Louis Friedlander and Theodor Müller, both of Berlin, Prussia, 16th May, 1895; 6 years.

*Claim.*—1st. An oil gas generating lamp where the liquid fuel, before leaving the burner is mixed into gas and then mixed with atmospheric air in due proportion, whereupon the ignited mixed gases ignite an incandescent body put into the flame, substantially as set forth. 2nd. An oil gas generating lamp consisting of a vessel A containing the liquid fuel, benzine, naphtha or the like, connected by a tube B, with a lower placed valve S, by external heating of which the fuel is vaporized and upon the outlet of which valve S, is put a nozzle L, surrounded by a tube M, having holes N, in the circumference of its lower part, through which holes air is supplied and mixed with the gases escaping from the nozzle whilst above the mouth of the mixing pipe M, is put an incandescent incandescent body, substantially as set forth. 3rd. For an oil gas lamp as specified a check valve S, having above the valve seat a narrow pipe F, penetrating the wall of the valve, the other end of which is inclined to the outside of the valve below the seat of the valve, substantially as set forth.

**No. 48,955. Sewer Valve. (Soupape d'égout.)**



William Godfrey, Saugatuck, Connecticut, U.S.A., 16th May, 1895; 6 years.

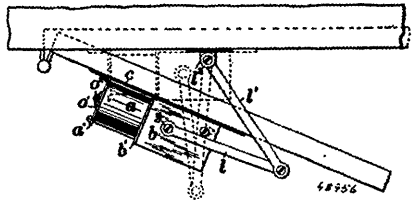
*Claim.*—1st. A sewer valve, comprising an inlet pipe section, an outlet pipe section, and a valve hung in an inclined position intermediate of the sections, the latter being curved in opposite directions from the valve seat to form a positive drop in the outlet section, substantially as shown and described. 2nd. A sewer valve, comprising an inlet pipe section and an outlet pipe section, of which the former is provided at its lower end with an inclined valve seat and curves upward from the same, the outlet section curving downward from the said valve seat to form a drop for the liquid after the same passes over the seat in the inlet pipe section, substantially as shown and described. 3rd. A sewer valve, comprising an inlet pipe

section, an outlet pipe section, and a valve hung in an inclined position intermediate of the sections, the latter being curved in opposite directions from the valve seat to form a positive drop in the outlet section, and a handle in the outlet section to give access to the said valve, substantially as shown and described. 4th. In a sewer or the like, the combination of the pipe section provided with a peripheral flange, and having the lower portion of its extension in advance of such flange inclined downward and made longer than its upper portion whereby to provide at the end of said portion a valve seat inclined to the vertical, said section being continuous and free of joints whereby it is unbroken past its peripheral flange, the valve fitting said seat, and the outlet section having at its end a flange abutting and secured to that of the valve seat section, and having its lower portion adjacent to said flange underlying and fitting closely to the under side of the valve seat section for distance from the flange nearly to the valve seat, and having immediately back of said valve seat a dropped portion whereby to avoid clogging the valve seat by accumulations, all substantially as and for the purposes set forth.

**No. 48,956. Automatic Door Closing Device.**

(Fermeture automatique de porte.)

Fig. 1.



Charles Winckhofer, Newark, New Jersey, U.S.A., 16th May, 1895; 6 years.

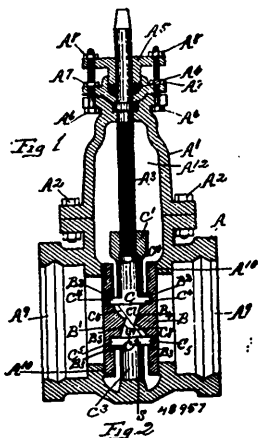
*Claim.*—1st. In an automatic door closing device, the combination, with an air cylinder and a piston fitted thereto having a piston rod provided with a lateral stud, of a spindle arranged at one end of the cylinder adjacent to the piston rod with a cam mounted thereon adapted to engage the said lateral stud, a spring connected to the cam and adapted to retain the same in its normal position, and a lever upon the spindle for turning the same in opposition to the spring, substantially as herein set forth. 2nd. In an automatic door closing device, the combination, with an air cylinder and a piston fitted thereto having a piston rod provided with a lateral stud, of a spindle arranged at one end of the cylinder adjacent to the piston rod with a cam mounted thereon adapted to engage the said lateral stud, a spring fixed adjacent to the said cam and connected to a suitable pin upon the same, and a lever for turning the spindle and cam in opposition to the spring, substantially as herein set forth. 3rd. In an automatic door closing device, the combination, with a suitable casing, an air cylinder, and a piston with its rod projected within the said casing and provided with a lateral stud, of a spindle mounted in the casing adjacent to the piston rod and carrying a cam adapted to engage the stud upon the piston rod, a fixed stud within the casing adjacent to the cam, a spring encircling the said stud with one end fixed and the other end terminating in a freely movable arm, a pin upon the said cam, a chain for connecting the movable arm of the spring with such pin, and a lever applied to the spindle without the casing for turning the same, substantially as shown and described. 4th. In an automatic door closing device, the combination, with a suitable casing, an air cylinder, and a piston with its rod projected with the said casing and provided with a lateral stud, of a spindle mounted in the casing adjacent to the piston rod and carrying a cam adapted to engage the stud upon the piston rod, a fixed stud within the casing adjacent to the cam, a spring encircling the said stud with one end fixed and the other end terminating in a freely movable arm, a pin upon the said cam at its periphery, a stud projected from the cam opposite to its peripheral pin, a chain for connecting the movable arm of the spring with the said pin, and a lever applied to the spindle without the casing for turning the same, as and for the purpose set forth.

**No. 48,957. Valve. (Soupape.)**

John T. Christie, Troy, New York, U.S.A., 16th May, 1895; 6 years.

*Claim.*—1st. In a slide-gate valve, the combination with the case, and screw-threaded stem, of a hollow interiorly threaded top-wedge rotarily mounted on the stem and provided with oppositely inclined working faces, a subjacent bottom wedge provided with oppositely inclined working faces, and a pair of gates, one gate having on its back an inclined surface engageable with one of the inclines of the top wedge, and the other gate having an inclined back surface engageable with one of the inclines of the bottom wedge, the contiguous inclines of the wedge being engageable with each other, substan-

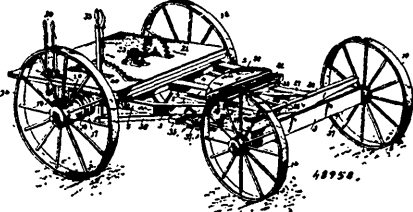
tially as described. 2nd. In a slide-gate valve, the combination with the case, and a pair of slide-gates, of a pair of gate-seating wedges, each wedge having two oppositely and unequally inclined faces, two of the faces one on each wedge being unchangeable respectively with the gates, and the other two faces with each other,



and means for operating the wedges, substantially as described. 3rd. In a slide-gate valve, the combination with the case, and screw-threaded stem, of a hollow interiorly threaded top wedge rotarily mounted on the stem and provided with oppositely and unequally inclined working faces, a gate having on its back an inclined surface engageable with the steeper incline on the top wedge, a bottom wedge provided with oppositely and unequally inclined working faces and having its easier incline engageable with the easier incline of the top wedge, and a gate having on its back an inclined surface engageable with the steeper incline on the bottom wedge, substantially as described.

**No. 48,958. Motor Operated Vehicle.**

(Voiture actionnée par un moteur.)

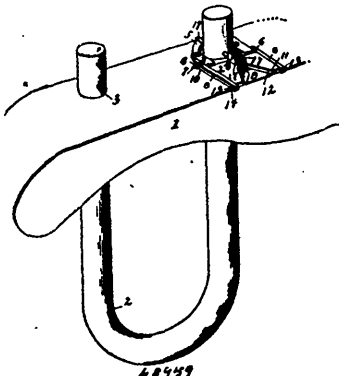


Andrew William Jackson Best, Arcadia, Florida, U.S.A., 16th May, 1895; 6 years.

*Claim.*—1st. In a vehicle of the class described, the combination with a main framework, rear traction wheels, a front axle pivotally connected to the framework, and means for turning said front axle to guide the vehicle, of push-bars attached at their front ends to the front axle upon opposite sides of its centre, a hood rigidly attached to the main framework, and a shoe loosely swivelled at its centre to the front hounds operating in said hood and adapted to bear at either end against the rear extremity of said push-bars, substantially as specified. 2nd. In a vehicle of the class described, the combination with a framework, rear driving or traction wheels, a front axle pivotally connected to the framework, means for turning said front axle to guide the vehicle, and hounds extending from the front axle and provided with a central longitudinally disposed bar, of push-bars arranged upon opposite sides of said central bar and bearing at their front ends against the front axle, a hood fixed to said framework, and a shoe swivelled on the rear extremity of said central bar and provided at its extremities with buffer or pillow blocks to bear against the rear extremities of the push-bars, substantially as specified. 3rd. In a vehicle of the class described, the combination of a supporting framework having a central longitudinal reach, parallel side bars connected by cross-bars 4 and 7, said reach being attached at its rear end to the cross-bar 4, rearwardly-

divergent braces attached at their front ends to the reach and at their rear ends to the side bars of the framework, a segmental hood attached to the upper side of the reach, and a front axle pivotally connected to the front end of the reach and carrying steering-wheels, push-bars attached at their front ends to the front axle at opposite sides of its pivot point, a central bar 35 arranged between and parallel with said push-bars and terminating at its rear end in a reduced pintle, a shoe swivelled upon said pintle and adapted to bear at either end against the rear extremities of said push-bars, said shoe being provided with a rear segmental side to fit and operate in the segmental hood, a steering-bar pivotally connected to the reach and loosely connected at its extremities by interposed links with the front, a steering lever operatively connected with said steering-bar, a rear driving-axle loosely mounted in the framework, means for communicating motion to said rear axle, driving or traction wheels loosely mounted upon said rear axle, and clutch-devices for securing the driving or traction wheels to the axle, substantially as specified.

**No. 48,959. Ox Yoke Key. (Clef de joug.)**



Benjamin W. Johnson, Buna, Texas, U.S.A., 16th May, 1895; 6 years.

*Claim.*—1st. The combination with a yoke and bow, of a plate rigidly secured to the yoke and at one side of one end of the bow, a swinging plate connected to the rigid plate so as to be capable of swinging thereon, and located at the opposite sides of the bow, and a key pivoted to the swinging plate and capable of being moved in and out of an opening in the bow, substantially as described. 2nd. The combination with a yoke and bow, of a plate secured to one side of the bow and on the yoke, links pivotally connected to each end of the plate and arranged one on each side of the bow, a swinging plate pivotally connected to the remaining ends of the links and on the opposite sides of the bow, and a key pivoted to the swinging plate and capable of being moved in and out of an opening in the bow, substantially as described. 3rd. The combination with a yoke and bow, of a supplemental plate arc-shaped in form and rigidly secured to the yoke at one side of one end of the bow and so as to partially embrace the same, links pivotally connected to each end of the supplemental plate, a swinging plate pivotally connected to the remaining ends of the links and on the opposite sides of the bow, said plate having at one side a pair of duplicate lugs, and a key formed with a flattened portion, which portion is fitted between said lugs and pivoted therein, the key being capable of being moved in and out of an opening in the bow, substantially as described. 4th. The combination with a yoke and bow, of a swinging plate mounted on the yoke, and a pivoted key carried by the swinging plate and arranged adjacent to the bow, whereby it is adapted to be moved into and out of an opening in the bow, substantially as described.

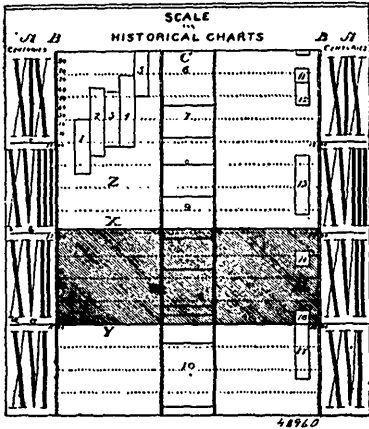
**No. 48,960. Scale for Historical Charts.**

(Echelle pour carte historique.)

Arthur Hodgkin Seafis, Victoria, British Columbia, Canada, 16th May, 1895; 6 years.

*Claim.*—1st. In an historical chart, the combination of a vertical column of centuries, a vertical column adjacent to the century column dividing the centuries into convenient portions so that an horizontal line drawn to oblongs or parallelograms or to a record of an event may indicate a date or period, substantially as described and specified. 2nd. A scale for historical charts, comprising a marginal vertical column of centuries in which the centuries are arranged in regular sequence one above the other, a small vertical column adjacent to the century column and dividing the centuries

into aliquot portions of any convenient number of years, so that horizontal lines drawn from the marginal scale to parallelograms or oblongs arranged lengthwise of the chart in separate columns to or overlapping each other may indicate time or periods, substantially as described and specified. 3rd. In a scale for historical charts, marginal vertical columns of centuries with dividing index lines between consecutive centuries arranged on each border of the



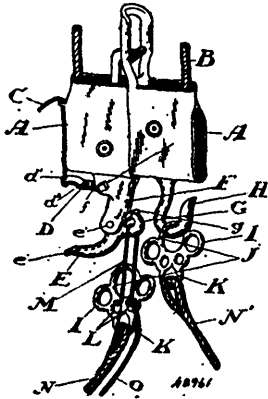
historical chart, a small vertical column adjacent to each of the century columns dividing the centuries into convenient and equal sub-divisions, so that horizontal lines drawn from the marginal scales to parallelograms or oblongs or to a record of an event, may indicate dates, times or periods, substantially as described and specified. 4th. In an historical chart, the combination of marginal vertical columns of centuries, a small vertical column adjacent to each of the century columns, dividing the centuries into equal aliquot sub-divisions, and horizontal lines running from scale to scale, enclosing a space which may be coloured to indicate the period of a house or dynasty, substantially as described and specified. 5th. In an historical chart the combination of a marginal vertical column of centuries, a small vertical column adjacent to each of the century columns dividing the centuries into equal aliquot sub-divisions and horizontal index or base lines running across the chart, by means of which dates or lengths of periods may be readily ascertained, substantially as specified. 6th. In an historical chart, the combination of a vertical column of years and parallelograms or oblongs arranged on said chart, substantially as described and for the purpose specified. 7th. In an historical chart, the combination of a vertical column of years and horizontal index or base lines running across the chart, by means of which, dates or lengths of periods may be readily ascertained, substantially as specified. 8th. In an historical chart, the combination of a vertical column of years, horizontal index or base lines and parallelograms or oblongs arranged in the chart, substantially as described and for the purpose specified.

**No. 48,961. Trip-Sling. (Elingue de transport.)**

James White Provan, Oshawa, Ontario, Canada, 16th May, 1895; 6 years.

*Claim.*—1st. A trip-sling comprising a sling suitably supported at each end and formed in two parts detachably connected together, in combination with a trip-line, connected to one of the points of support of the sling and adapted to break the connection between the two parts, when the weight of the load is transferred from the sling to the trip-line, substantially as described and specified. 2nd. In a device of the class specified, a plurality of slings, each of which is suitably supported at each end and formed in two parts, detachably connected together, in combination with a plurality of trip-lines, each connected to one of the points of support and adapted to simultaneously break the connection between the two parts of the slings, when the weight of the load is transferred from the slings to the trip-lines, substantially as described and specified. 3rd. A trip-sling, comprising a sling suitably supported at each end and formed in two parts, detachably connected together by means of a trip hook and eye, in combination with a trip-line connected to one of the points of support as well as to the trip hook, and a tripping cord for tripping a pivoted catch so as to release one end of the tripping line from the trigger and transfer the weight of the load from one of the parts of the sling to the adjacent trip-line so as to cant the trip hook and disengage it from the eye on the other part of the sling, substantially as described and specified. 4th. In a device of the class specified, the combination of pulley block A,

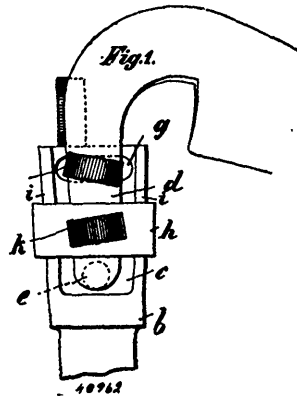
eye *a*, tripping cord *c*, pivoted catch *D*, provided with catch hole *d'*, bracket *F*, spring *f*, pivoted trigger *E*, provided with lug *e*, and hook *G*, substantially as described and for the purpose specified. 5th. In a trip-sling, a trip hook *P*, having hole *Q* for the sling, and hole *p* for the trip line, and seat *r* for the eye, centrally located



*Fig. 2*

between the holes *q* and *p*, the hole *p* being so located as to be further than the hole *q* from the point of support when the trip hook *P* is engaged with the eye *Q*, and nearer than the hole *q* to the point of support, when the trip hook *P* is becoming disengaged from the eye *Q*, substantially as described and specified. 6th. In a device of the class specified, the combination of pulley blocks *A*, *A'*, the hoisting rope *B*, the pivoted trigger *E*, supported from block *A*, the pivoted catch *D*, with catch hole *d'*, the spring *f*, the tripping cord *C*, eye *a*, and the pivoted trigger *E*, provided with lug *e*, the hook *G*, the connecting rings *I*, *J*, the loop *M*, the part *N*, the trip-line *O*, the trip hook *P*, the points of connection for the trip-line *O*, and the part *N* at *p* and *q* respectively, the eye *Q*, hook *H*, and the part *N'*, substantially as described and for the purpose specified.

**No. 48,962. Scythe. (Faux.)**



Erich Kohtz and Julius Schulz, both of Steinversruh, Prussia, Germany, 16th May, 1895; 6 years.

*Claim.*—1st. The improved attachment or fastening for scythe handles, substantially as described and as shown. 2nd. In a fastener for scythes, with groove *a*, to admit the tang *d*, regulated by thumb screws *f*, *k*, and the movable holder *h*, substantially as described.

**No. 48,963. Button Setting Machine.**

(Machine pour poser les boutons.)

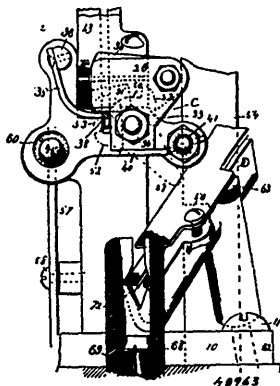
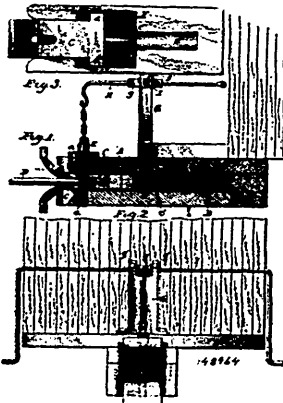


Fig. 4.

Alexander G. Wilkins, Meadville, Pennsylvania, U.S.A., 16th May, 1895; 6 years.

*Claim.*—1st. In a button setting machine, the combination with a shaft adapted to rock axially, of a clamp comprising a plate secured to the shaft, said plate having a laterally projecting flange, and a jaw hinged to the plate and adapted to receive and clamp a button between it and the laterally projecting flange, substantially as set forth. 2nd. In a button setting machine, a clamp consisting of a plate having a flange or projection extending laterally therefrom, and a jaw hinged to the plate, said jaw having a notch formed therein adapted to receive the head of a button between itself and an edge of the flange, said notch inclining inward whereby to draw the button toward the hinge of the jaw, substantially as set forth. 3rd. In a button setting machine, a clamp consisting of a plate having a laterally projecting die holding flange or projection, and a hinged jaw for holding the button head between it and the flange or projection, substantially as set forth. 4th. In a button setting machine, the combination with a rocking shaft having a flattened face, of a clamp having a laterally projecting die holding flange or projection, the rear face of which lies against the flattened face of the shaft, substantially as set forth. 5th. In a button setting machine, the combination with a rocking shaft, and a clamp secured on one end thereof adapted to receive and hold a button, of a segment secured on the shaft, and a reciprocating lever constructed to engage and rock the segment, substantially as set forth. 6th. The combination, with a rocking shaft, and a clamp secured on one end of the latter, of a segment on the rear of the shaft, a reciprocating cross-head, and a lever hinged to the cross-head and constructed to engage and rock the segment with the shaft and its clamp, substantially as set forth. 7th. The combination, with a reciprocating cross-head, and a rocking shaft having a clamp on one end, and a segment with a projection on the other end, adapted for limiting the rocks of the clamp shaft, and a lever hinged to the cross-head and normally bearing against the projection on the segment, said lever constructed to rock the segment back and forth, substantially as set forth. 8th. The combination, with the frame of the machine, button fastening mechanism, and a clamp comprising two parts and having pivotal or rocking connection with the frame whereby it may be swung or rocked from its normal position in which it receives the button, to the button fastening mechanism, of a clamping bar in position to engage the clamp during the button fastening operation whereby to lock it firmly upon the button, substantially as set forth. 9th. The combination, with a clamp adapted to receive and hold a button between its parts of a spring-actuated sliding clamping bar for engaging the clamp, a cam lever for moving said bar, and a reciprocating cross-head adapted to vibrate the cam lever, substantially as set forth. 10th. The combination with a button chute, of a clamp located at the lower end of the chute and adapted to receive buttons directly from the chute, and a pivoted detent adapted to bear on the clamp and having a notch therein which constitute a continuation of the chute and is adapted to receive the shank or eye of the button and form a stop for it, substantially as set forth. 11th. The combination with a button chute, of a clamp having a hinged jaw and a rearwardly extending flange or projection and a pivoted detent having a notch therein, said notch located in alignment with the button chute and adapted to receive a button eye or shank therein, substantially as set forth. 12th. The combination with a rocking shaft and a clamp thereon, said clamp carrying a die, of a pivotally supported plate having an edge in position to form a backing for the pin of the button fastener when the latter is being clinched, substan-

tially as set forth. 13th. The combination with a rocking shaft, means for rocking the shaft and a clamp secured on the shaft, of a spring-actuated rocking bolt split at one end, and a plate adjustably secured in the split end of the bolt, said plate having an edge in position to form a backing pin of the button fastener when the latter is being clinched, substantially as set forth. 14th. The combination with a button chute, a rocking shaft, a clamp located on said shaft at a point adjacent to the lower end of the chute in position to receive buttons from the latter, a pivoted detent, an adjustable pivoted plate, and a sliding clamping bar of a reciprocating cross-head, two levers operated by the cross head, one to rock the rocking shaft and the other to slide the clamping bar, substantially as set forth. 15th. The combination with a fastener chute, and a cut-off therein said cut-off having a laterally projecting shank, of a reciprocating cross-head, a lever pivotally connected therewith and a link having pivotal connection with the lever and with which the shank of the cut-off is connected, substantially as set forth. 16th. The combination with a fastener chute, of a rocking cut-off therein, a rocking shank the end of which is bent laterally, of a reciprocating cross-head, a lever hinged thereto, and a link pivoted to the lever and loosely connected with the shank of the cut-off, substantially as set forth. 17th. The combination with a button chute, and a rocking clamp comprising two jaws hinged together, said clamp located at the lower end of the chute and adapted to receive and clamp the button and turn its eye or shank from a vertical to a horizontal position, of a die carried by a clamp, and an anvil rod for forcing the fastener through the button eye, substantially as set forth. 18th. The combination with a button chute, and a clamp located at the lower end of the chute in position to receive and hold a button means for rocking the clamp and a clamping bar, of a die carried by the clamp, and an anvil rod for forcing the fastener against the die, substantially as set forth. 19th. In a button setting machine, the combination with a head, of a removable casting adjustably supported thereon, and a removable fastener clute adjustably connected with the casting, substantially as set forth.

**No. 48,964. Car-Coupling. (Attelage de chars.)**

William Brooking, River, Indiana, U.S.A., 16th May, 1895 years.

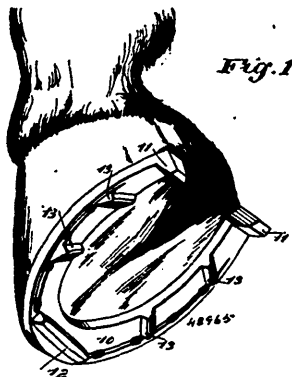
*Claim.*—1st. In a car-coupler, in combination with the link and link-pin, a draw-head having a link-pin hole, a spring within said draw-head, a block sliding therein against the resistance of a spring, a slot in said block, adapted to register with the link-pin hole, lateral projections extending from the rear of said block and a stop in said draw-head to receive the projections, whereby to limit the outward play of the sliding block, substantially as described. 2nd. In a car-coupler, the combination with the draw-head having a link-pin hole, and of the link-pin hole, and of the link-pin, of means for raising the link-pin from engagement with the link, comprising an upright G, having lateral and longitudinal bifurcations in its upper end, levers supported in said bifurcations, and extending at right angles to each other, a block G', adjoining said levers and having a bearing in one of the bifurcations and bolts G'', for retaining the levers in position, the combination being and operating substantially as and for the purpose set forth.

**No. 48,965. Horse Shoe. (Fer à cheval.)**

Frederick William Bach, New York, State of New York, U.S.A., 17th May, 1895; 6 years.

*Claim.*—A horse shoe provided on its under side with a toe calk

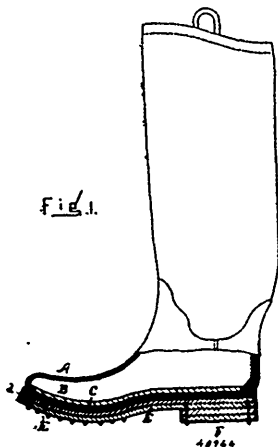
and heel calks, and a number of wedge-shaped side calks between the heel and the toe, said calks being spaced to prevent foreign matter from sticking between them, and placed diagonally at an



angle to each other and with their outer ends ahead, the bearing edges of the said side calks terminating interiorly of the outer edge of the shoe, substantially as described, whereby the horse is protected against injury by the outer ends of the calks, as set forth.

**No. 48,966. Rubber Boot and Shoe.**

(Chaussure de caoutchouc.)



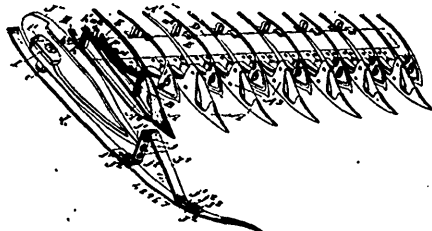
Charles L. Higgins, Montreal, Quebec, Canada, 17th May, 1886; 6 years.

*Claim.*—1st. As an improved article of manufacture the boot or shoe herein described, the same having a rubber insole, a rubber upper and a vulcanizable waterproof fibrous section united together by vulcanization, the fibrous section extending beyond the edge of the upper and providing means whereby an outside may be attached to the boot or shoe by fastenings which do not extend through the insole, as and for the purposes described. 2nd. A rubber boot or shoe having a rubber insole, the intermediate fibrous waterproof section united to the insole by vulcanization and having an edge extending beyond the edge of the upper, a leather sole secured to this intermediate section by rubber cement and by stitches passing through the exposed edge thereof and the edge of the sole, of and for the purposes described. 3rd. A rubber boot or shoe having a rubber insole, a rubber upper and a waterproof vulcanizable intermediate fibrous section united to each other by vulcanization, the said fibrous section having an exposed edge to act as a well, a leather sole secured to said fibrous section by rubber cement and by stitches passing through it near its edge and the edge of the said fibrous section and an outside and heel united to the intermediate leather sole D by fastenings which extend through it

into said sole but not through the insole, as and for the purpose described.

**No. 48,967. Pea Harvester.**

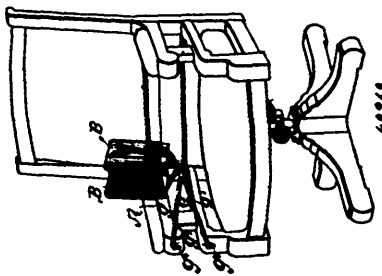
(Appareil pour recoller les pois.)



William Glover, St. John, Sunderland, Ontario, Canada, 17th May, 1886; 6 years.

*Claim.*—1st. In a pea harvester, the combination with the cutter bar and fingers, of lifters pivoted near the forward end on hangers secured on the ends of the fingers, as and for the purpose specified. 2nd. In a pea harvester, the combination with the cutter bar and fingers, of lifters pivoted near the forward end on hangers secured on the ends of the fingers and having upper rearward extensions secured at the front within the point of the lifter, and a strap straddling such lifter adjacent to the hangers and a pin passing through the strap, all arranged as and for the purpose specified. 3rd. The combination, with the cutter bar and fingers of lifters pivoted near the forward end on hangers secured on the ends of the fingers, bolts screwed into the hangers and passing rearwardly through hangers E, on the rear of the cutter bar, as and for the purpose specified. 4th. The combination, with the cutter bar and fingers of lifters pivoted near the forward end on hangers secured on the ends of the fingers, bolts screwed into the hangers and passing rearwardly through hangers E, on the rear of the cutter bar, heads intermediate of the length of the bolts abutting the hangers, lower rearward extensions having struts secured to the rear end straddling the ends of the bolts, as and for the purpose specified. 5th. The combination, with the cutter bar and fingers of lifters pivoted near the forward end on hangers secured on the ends of the fingers, lower rearward extensions to such lifters extending beneath the cutter bar and tension springs connecting the lower rearward extensions to points beneath the cutter bar, as and for the purpose specified. 6th. In a pea harvester, the combination with the cutter bar and lifters and snake-divider at the outer end of the cutter bar, of a shoe secured beneath the lifter next the snake-divider, as and for the purpose specified. 7th. In a pea harvester, the combination with the cutter bar and lifters and snake-divider at the outer end of the cutter bar, of a shoe extending through a slot in the lower front portion of the lifter, and secured in position at the rear by a bolt and sleeve, as shown and for the purpose specified. 8th. In a pea harvester, the combination with the cutter bar and lifters, of a snake-divider consisting of a bottom bar and dividing end plate provided with a forward point, an angular bar J<sup>1</sup>, provided with holes J, and slotted forward and rearward extensions J<sup>2</sup>, and bolts and nuts for securing the angular bars J<sup>1</sup>, in position as and for the purpose specified. 9th. In a pea harvester, the combination with the cutter bar and lifters and a snake-divider and shoe secured to the lifter next the snake-divider, of a bolt passing through the bottom bar and dividing end plate and a washer or washers situated on the bolt between the bottom of the dividing end plate and the bottom bar, as and for the purpose specified.

**No. 48,968. Book Support.** (Support pour livres.)

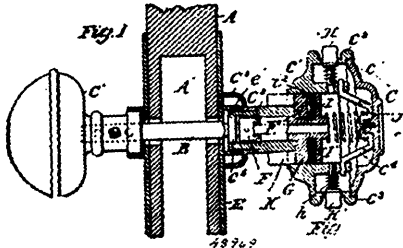


Charles L. Work, Cincinnati, Ohio, U.S.A., 17th May, 1886; 6 years.

*Claim.*—The combination substantially as hereinbefore set forth

of the back and lids of a book support with the brace levers secured to the lids and the central brace rod upon which the levers meet serving both as a catch for said brace levers and also as a longitudinal brace for the back of the holder, and means for holding said levers against the brace rod, substantially as described.

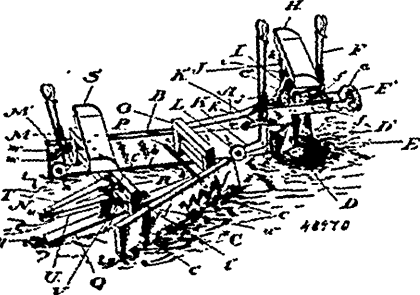
**No. 48,969. Door Knob Lock.** (*Bouton-serrure de porte.*)



George L. Barney and John L. Clough, both of Indianapolis, Indiana U.S.A., 17th May, 1895; 6 years.

*Claim.*—1st. A knob adapted for attachment to an ordinary lock or latch operating spindle, provided with keyless locking devices arranged to control the operation of the knob, substantially as described. 2nd. A knob adapted for attachment to an ordinary lock or latch operating spindle, provided with keyless locking devices, and a clutch controlled by said devices, substantially as described. 3rd. A knob adapted for attachment to an ordinary lock or latch, provided with keyless locking devices, a clutch and means for moving the clutch automatically when the proper keyless locking devices are operated, substantially as described. 4th. The combination with an ordinary spindle, of a knob provided with keyless locking devices, means for securing the knob with relation to the spindle so that the knob can be moved without operating the same, and a clutch device arranged to engage the spindle so that it will be operated with the knob, the clutch being controlled by the keyless locking devices, substantially as described. 5th. A knob provided with a series of push-buttons radially mounted in the knob, a clutch device and intermediate connections between the push-buttons and clutch device for controlling the latter, substantially as described. 6th. A knob provided a series of push-buttons and a clutch device, a plunger connected to the clutch device, and locking devices controlling the plunger and controlled by the push-buttons, substantially as described. 7th. A knob provided with a series of push-buttons, and a plunger, a series of locking devices normally engaging the plunger and disengaged by the push-buttons, and another series of locking devices disengaging the plunger and engaged therewith by the push-buttons, substantially as described. 8th. A knob provided with a series of keyless locking devices, a clutch member and a plunger, means for automatically moving the plunger in one direction, and means for returning it to its position, substantially as described. 9th. A knob provided with keyless locking devices, a plunger controlled by the keyless locking devices, the plunger being provided with a series of recesses, and pins for the recesses, substantially as described. 10th. A knob having the characteristics of construction, arrangement and mode of operation, substantially as hereinbefore set forth.

**No. 48,970. Road Scraper.** (*Grattoir pour chemins.*)

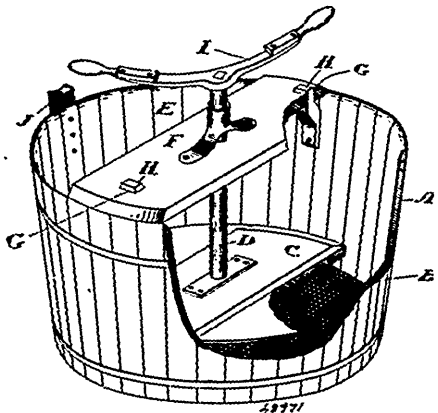


Peter Daniel Fritz, Bertie, Ontario, Canada, 17th May, 1895; 6 years.

*Claim.*—1st. In a road scraper, the combination with a V-shaped frame, of a cutter and an adjustable point located at the apex of the frame and suitably pivoted, a hand lever on the draft beam and a pivoted link connection between the hand lever, and an arm on the

point, substantially as described and specified. 2nd. In a road scraper, the combination with a metal shod V-shaped frame, of a cutter and an adjustable point located at the apex of the frame, a hand lever on the draft beam, and a pivoted link connection between the hand lever and an arm on the point, bell-crank hand levers fulcrumed on the landside and ester-wheels journalled on these hand levers, a tipped shoe pivotally attached to a shoe bar, an upper tilting bar pivotally connected to the rear brace, a clevis and a notched lower tilting bent lever pivotally connected with the tipped shoe, substantially as described and specified. 3rd. In a road scraper, the combination of a metal shod and tipped landside and metal shod scraper and cross-braces forming a V-shaped frame, a draft beam connected to and in line with the landside, an adjustable seat, a cutter and an adjustable point, a hand lever on the draft beam, and a pivoted link connection between the hand lever and an arm on the point, bell-crank hand levers fulcrumed on the landside, and ester-wheels journalled on these hand levers, a tipped shoe pivotally attached to a shoe bar, an upper tilting bar pivotally connected to the rear brace, a clevis and a notched lower tilting bent lever pivotally connected with the tipped shoe, substantially as described and specified. 4th. In a road scraper, the combination with the draft beam A, and frame of the machine, of the point E, pivot c<sup>1</sup>, the upturned end D<sup>1</sup>, of the cutter D, the arm e<sup>11</sup>, the slot f, pivoted link K, the point-lever spring F, dog f, suitably operated, and the notched quadrant B<sup>1</sup>, substantially as described and for the purpose specified. 5th. In a road scraper, the combination with the landside B, of the bell-crank lever K, fulcrumed on the landside, the spring dog e<sup>11</sup>, suitably operated, the notched quadrant K<sup>1</sup>, and the fore ester-wheel L, journalled on the lower end of the bell-crank lever K, the bell-crank lever M, also fulcrumed on the landside, the spring dog m<sup>11</sup>, suitably operated, the notched quadrant M<sup>1</sup>, and the rear ester-wheel N, journalled on the lower end of the bell-crank lever M, substantially as described and for the purpose specified. 6th. In a road scraper, the combination with the landside B, tipped at b<sup>1</sup>, and scraper C, of the shoe bar U, the shoe Q, tipped at q<sup>1</sup>, and pivotally connected with the shoe bar the rear brace R, the upper tilting arm T, the clevis t<sup>11</sup>, the lower tilting bent lever U, with notches u<sup>1</sup>, and the pivot V, connecting the shoe Q, with the bent lever U, substantially as described and for the purpose specified. 7th. In a road scraper, the combination of the steel plated landside B, and steel-plated scraper C, set at an angle of about 33 degrees to each other, forming a V-shaped frame, the cutter D, with upturned end D<sup>1</sup>, the adjustable point E, with pivot e<sup>1</sup>, located at the apex of the frame, the tipped shoe b, the shoe e<sup>11</sup>, the centre brace Q, the rear trace B, rear seat S, and draft beam A, provided with clevis a, and connected to and in line with the landside B, substantially as described and for the purpose specified.

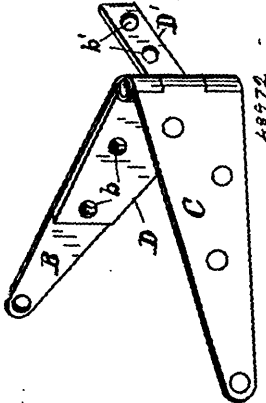
**No. 48,972. Washing Machine.** (*Machine à laver.*)



John N. Stong, Woodbridge, Ontario, Canada, 17th May, 1895; 6 years.

*Claim.*—1st. In a washing machine, the bottom washboard B, having cross-corrugations cut therein, in combination with the top washboard C similarly corrugated, the vertically movable shaft D, handle I, bearing E, cross-bar F, and projections H, fitting the holes G in the cross-bar, substantially as and for the purpose specified. 2nd. In a washing machine, the bottom washboard B, having cross-corrugations cut therein, in combination with the top washboard C similarly corrugated, the vertically movable shaft D, handle I, bearing E, cross-bar F, and projections H, fitting the holes G, in the cross-bar, and rest J, substantially as and for the purpose specified.

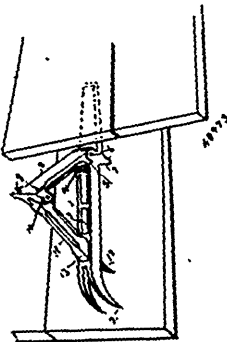
**No. 44,972. Hinge. (Penture.)**



William B. Diming, Bentonville, Arkansas, U.S.A., 17th May, 1885; 6 years.

*Claim.*—1st. As an article of manufacture, a reinforcing plate for hinges comprising in its construction two attaching plates, substantially at right angles to each other and adapted to be secured respectively to the leaf of the hinge and to the edge of the door jamb, substantially as and for the purposes set forth. 2nd. The combination, with a hinge, of a removable strengthening device having straps adapted to be placed, the one above and the other below the hinge, and to be secured to the side of the post or jamb adjacent to and at right angles with that to which the strap is secured, and having a connecting plate integral with the straps and adapted to overlay the strap next to the knuckle of said hinge, substantially as described. 3rd. As a new article of manufacture, the removable device for strengthening hinges and consisting of the bar D<sup>1</sup> adapted to be placed transversely across the hinge strap next to the knuckle and having its contacting faces parallel with the outer face of the strap, and the two straps D<sup>2</sup> integral with the bar D<sup>1</sup>, and at right angles thereto and a distance apart at least equal to the width of the strap and adapted to be secured to the face of the post at right angles to and adjacent to the face to which the hinge is fastened, the contacting faces of the straps being parallel with the inside face of the post or jamb, substantially as and for the purposes specified.

**No. 44,973. Shingle Bracket. (Doulin pour bardeaux.)**

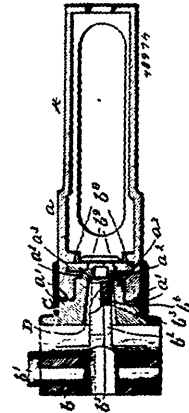


Julius W. Flowers, Newport, Oregon, U.S.A., 17th May, 1885; 6 years.

*Claim.*—1st. In a shingle bracket, the combination of a cast metal bed piece having divergent spurs at one end, and having the opposite end tapered and provided midway of its ends with an abutment, and having a series of slots between the said abutment and the end provided with the spurs, a brace pivotally connected with the said bed in front of the abutment, and a leg pivoted to the free end of the brace and having a spur at its opposite end to project through one of the said series of slots, and having shoulders on each side of

the spur to bear upon the bed and limit the movement of the said spur, substantially as set forth. 2nd. The herein shown and described shingle bracket, composed of a cast metal bed, having feet on the under side between its ends, and having divergent spurs at one end, an abutment on the upper side, and having a series of slots between the said abutment and the spurs, a brace pivoted to the bed in front of the abutment, and provided with spurs on its upper face, and a leg pivoted to the free end of the said brace, and having a spur at its free end to be thrust through one of the said series of slots, substantially as set forth.

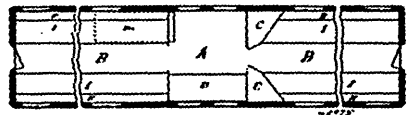
**No. 48,974. Car-Coupler. (Attelage de chars.)**



William L. Griston, Chester, Pennsylvania, U.S.A., 17th May, 1885; 6 years.

*Claim.*—1st. In a car-coupler, the combination with a rotating head, of a lug, on the knuckle side thereof to be engaged by the opposite side of another coupler, and rotate both couplers into a locking position when they meet at an angle. 2nd. A car-coupler comprising a draw-bar, the forward end of which is opened its edges cast at an angle sloping rearwardly and outwardly, a lug or projection and a groove on the inner faces of said end, and a draw-head having a seat to receive the lug or projection and groove, substantially as described. 3rd. A car-coupler-head, having a seat provided with curved and angular walls in the rear end of the head, a solid wall sloping rearwardly and forwardly in front of said seat, and a groove and lug or projection also on the rear of said head, in combination with a draw-bar having an open head constructed to engage the inclined wall, groove, and projection, and a cap to cover the head and draw-bar where they engage each other, a portion of said cap extending below the lug, substantially as described. 4th. A car-coupler comprising a draw-bar having an open forward end, a curve and level on the extreme edge of said end, said level sloping rearwardly and outwardly, a lug and a groove on the inner faces of said end, and a draw-head with a seat for said lug, groove and curved and levelled end of the draw-bar, substantially as described. 5th. In a car-coupler, the combination with a rotatable-head, a groove and rib on said head, of a draw-bar, a groove and rib on said bar, a stop to limit the movement of said head, substantially as described. 6th. In a car-coupler, the combination with the head and bar, a groove and projection formed on said head and bar respectively, of a combined cap and stop to cover the joint between the head and bar and limit the rotation of the head, substantially as described.

**No. 48,975. Railway Car. (Char de chemin de fer.)**



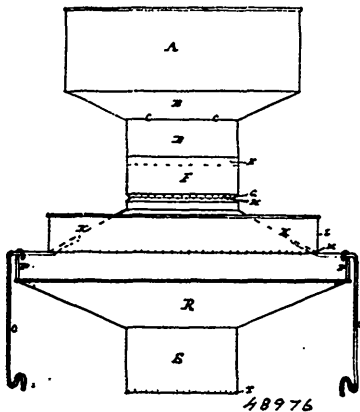
Benjamin Gordon Wright, London, Ontario, Canada, 17th May, 1885; 6 years.

*Claim.*—1st. The combination, in a car of passenger compartment A in centre of car, with end B and B, and compartments B, B and C, C, substantially as and for the purpose set forth. 2nd. The combination of weight J, cable T, pulley K, and hinge L, with tray M, substantially as and for the purpose hereinbefore set



forth. 3rd. Tray N, in combination with tray M, substantially as and for the purpose set forth. 4th. Brace P, substantially as and for the purpose set forth. 5th. The combination of trays R, I and F, and drawer E, with casing H, and brace P, substantially as and for the purpose set forth. 6th. The combination of cot D, cleat or track S, with casing H, substantially as and for the purpose set forth.

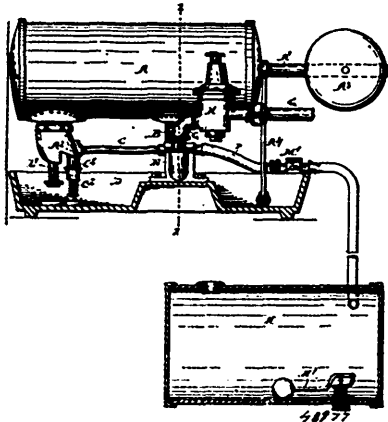
**No. 44,976. Milk Aerator. (Aérateur à lait.)**



Daniel Shaw, Almonte, Ontario, Canada, 17th May, 1895; 6 years.

*Claim.*—1st. The funnel-shaped chamber R, S, T, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of legs O, O, and hooks P, P, substantially as and for the purpose hereinbefore set forth.

**No. 48,977. Air-Pump. (Pompe à air.)**

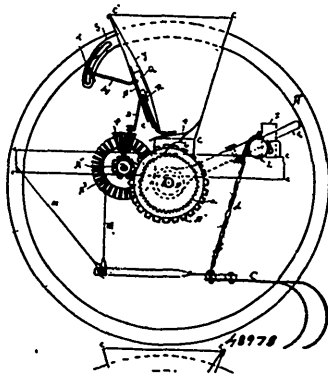


John Moreland, Detroit, Michigan, U.S.A., 17th May, 1895; 6 years.

*Claim.* 1st. In an automatic air-pump or air compressor, the combination of a tilting chamber, a rocking standard supporting said chamber provided with a hallow inlet arm, and a valve casing, said arm provided with a valve seating within said case when said chamber tilts, substantially as and for the purpose described. 2nd. In an automatic air-pump or air compressor, the combination of a tilting receiving chamber, a rocking standard supporting said chamber provided with a hallow inlet arm, a valve casing receiving the end of said inlet arm, a water inlet pipe leading into said valve casing, and a valve adjustably engaged upon said inlet and within said valve casing, substantially as set forth. 3rd. In an automatic air-pump or air compressor, the combination of a receiving chamber pivotally mounted at one side, the centre of gravity upon a hallow

rocking arm communicating with said chamber and upon a solid arm, a valve casing receiving one end of said hollow arm, a water inlet pipe communicating with said casing, a regulator interposed into said water inlet pipe, the end of said hollow arm within said valve casing provided with a valve to open and close the communication through said arm into said receiving chamber, substantially as set forth. 4th. In an automatic air-pump or air compressor, the combination of a tilting receiving chamber, a rocking standard provided with a water inlet arm communicating with said chamber and with an air outlet passage communicating with said chamber, a valve casing communicating with the water inlet arm, a water inlet pipe communicating with said valve casing, a valve within said casing to control the communication through said casing receiving chamber, and a valve to control the communication through the air outlet passage, substantially as set forth. 5th. In an automatic air-pump or air compressor, the combination of a counter-balanced tilting receiving chamber, a standard B, supporting said chamber provided with a hallow rocking arm communicating with the interior of said chamber, and with an air outlet passage communicating with said chamber, an air outlet pipe C, communicating with said outlet passage, a check valve M, located in said air outlet pipe, an additional valve engaged with said air outlet pipe to vent said chamber when it tilts, a water discharge valve engaged with said chamber to open when the chamber tilts, the valve to vent said chamber opening in advance of said discharge valve when the chamber tilts, a water inlet pipe communicating with said chamber, and a valve controlling its communication with said chamber, substantially as set forth. 6th. In an automatic air-pump or air compressor, the combination of a tilting receiving chamber, a rocking standard supporting said chamber at one side the centre of gravity provided with a hallow water inlet arm communicating with said chamber, a counter-balance weight engaged with said chamber, a water inlet pipe communicating with the chamber through said hollow arm, a valve to control said communication, an air outlet passage communicating with said chamber provided with an air vent valve with a check valve, a water discharge valve arranged to open when the chamber tilts, the construction being such that the water at the weighted end of the chamber, when the chamber is in normal position, will aid to counter-balance the chamber, and when the chamber is tilted the water will aid in overcoming the counter-balancing, substantially as set forth. 7th. The combination of an air-pump or air compressor, an immovable air storage tank communicating therewith to receive air from said pump or compressor, said storage tank provided with an air discharge passage and with a water discharge passage, and a float valve to control said water discharge passage, substantially as set forth.

**No. 48,978. Seeding Machine. (Semoir.)**



Joseph Arthur Archambault, St. Hyacinthe, Québec, Canada, 17 mai, 1895; 6 ans.

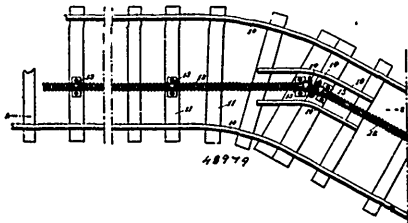
*Résumé.*—1<sup>o</sup> La combinaison du ressort r, de la pièce dentelée p, du moyeu dentelé D, et de l'essieu F E. 2<sup>o</sup> La combinaison de l'essieu F E, avec les roues dentées a a a, et la roue d'engrenage A<sup>1</sup>, et cette dernière et les roues d'engrenages A<sup>2</sup>, et cette dernière et les roues d'engrenages A<sup>3</sup>, A<sup>3</sup>, le piston F, et le bras B B. 3<sup>o</sup> La combinaison des roues dentelées a a a, avec les ressorts b b b. 4<sup>o</sup> La combinaison du senoir tel que fait et avec son rotou R H, et sa planchette N, le tout tel que décrit et pour les fins indiquées.

**No. 48,979. Railway. (Chemin de fer.)**

William F. Hutchinson, New York, U.S.A., 17th May, 1895; 6 years.

*Claim.*—1st. An improved railway system, comprising suitable track rails, a driving screw parallel with the rails, a car, gear mech-

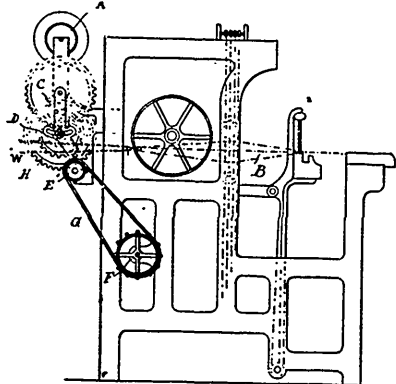
anism carried by the car to engage the screw, and means for automatically throwing the gear mechanism out of gear at the couplings of the screw, substantially as described. 2nd. In a railway system, the combination, with the revoluble driving screw, of worm wheels carried by a car and engaging the screw, an operative connection between the worm wheels and the car wheels, and a device for automatically removing the worm wheels from the screw



at points opposite the screw couplings, substantially as described. 3rd. In a railway system, the combination, with the driving screw of a car, a vertically movable hanger on the car, worm wheels carried by the hanger and engaging the screw, and guides on the track near the screw couplings to lift the hanger, substantially as described. 4th. In a railway system, the combination, with the driving screw and the car, of a vertically movable hanger on the car, a gear mechanism carried by the hanger and driven by the screw, an operative connection between the said gear mechanism and the car wheels, and means for raising the gear mechanism from the screw, substantially as described. 5th. In a railway system, the combination, with the driving screw and the car, of a horizontally turning and vertically movable hanger on the car, the gear mechanism carried by the hanger and adapted to engage the screw, and an operative driving connection between the said gear mechanism and the wheels of the car, substantially as described. 6th. In a railway system, the combination, with the driving screw and the car, of the vertically movable hanger on the car, the carriage pivoted on the hanger, the worm wheels journaled on the carriage, an operative driving connection between the worm wheels and the car wheels, and guides near the screw to engage and raise the carriage, substantially as described. 7th. In a railway system, the combination, with the driving screw and the car, of a horizontally turning and vertically movable hanger on the car, a sliding table supporting the said hanger, a gear mechanism carried by the hanger and engaging the screw, and an operative driving connection between the said gear mechanism and the wheels of the car, substantially as described. 8th. In a railway system, the combination, with the driving screw and the car, of the vertically movable hanger on the car, the guides on the track near the couplings of the screw, the carriage pivoted on the hanger and provided with wheels to engage the guides, the gear mechanism carried by the hanger and carriage, and an operative driving connection between the said gear mechanism and the wheels of the car, substantially as described. 9th. In a railway system, the combination, with the driving screw and the car, of the horizontally turning and vertically movable hanger on the car, the gear mechanism carried by the hanger and driven by the screw, a vertical shaft on the hanger connected with the said gear mechanism, a gear-wheel keyed to the vertical shaft, and an operative driving connection between the gear-wheel and the wheels of the car, substantially as described. 10th. In a railway system, the combination, with the driving screw and the car, of a differential gear connection between the driving screw and the wheels of the car, and means for automatically throwing the mechanism out of gear at points near the screw couplings, substantially as described. 11th. In a railway system, the combination, with the driving screw and the car, of the hanger on the car comprising a horizontally turning top section, a bottom section slidable vertically in the top section, a gear mechanism carried by the bottom section and engaging the screw, and means for raising the bottom section of the hanger and throwing the mechanism out of gear, substantially as described. 12th. In a railway system, the combination, with the driving screw, of the vertically movable hanger on the car, the shield or hood at the lower end of the hanger extending over the top of the screw, the carriage pivoted on the lower end of the hanger, the gear mechanism carried by the carriage and hanger and engaging the screw, an operative driving connection between the gear mechanism and the wheels of the car, and guides near the screw couplings to engage and lift the carriage, substantially as described. 13th. In a railway system, the combination, with the driving screw and the car, of the vertically movable hanger on the car, the shaft journaled in the hanger and operatively connected with the wheels of the car, the carriage pivoted on the lower end of the hanger, worm wheels mounted on the carriage and engaging the screw, a gear connection between the worm wheels and the shaft in the hanger, and guides near the screw to engage and raise the carriage, substantially as described. 14th. In a railway system, the combination, with the driving screw and the car, of the vertically movable hanger on the car, the shafts journaled near the lower end of the hanger and operatively connected with the car

wheels to turn them, the carriage pivoted at the foot of the hanger, the hanger arms pivoted on the carriage and hanger, and worm wheels journaled in the hanger arms and engaging the screw, and a gear connection between the worm wheels and the shaft in the hanger, substantially as described. 15th. In a railway system, the combination, with the screw and the car, of the laterally sliding table on the car, the hanger suspended from the table, the gear mechanism carried by the hanger and engaging the screw, and a driving connection between the said gear mechanism and the wheels of the car, substantially as described. 16th. In a railway system, the combination, with the driving screw and the car, of the laterally sliding table on the car, the hanger carried by the table, a gear mechanism supported by the hanger and engaging the screw, and a shaft carried by the table and having one end geared to the gear mechanism of the hanger, and the other end geared to an axle of the car, substantially as described. 17th. In a railway system, the combination, with the driving screw and the car, of the laterally sliding table on the car, the gear mechanism supported from the table and engaging the screw, and a shaft driven at one end by the gear mechanism of the hanger and connecting at the other end by a differential gear mechanism with the axle of the car, substantially as described. 18th. In a railway system, the combination, with the car and the driving screw, of a counter-shaft on the car, an operative driving connection between the screw and the counter-shaft, and a differential gear connection between the counter-shaft and one of the car axles, substantially as described. 19th. In a railway system, the combination, with the driving screw and the car, of the counter-shaft on the car, a gear mechanism connecting the screw with the counter-shaft, and a clutch-controlled system of graduated gears connecting the counter-shaft with one of the car axles, substantially as described.

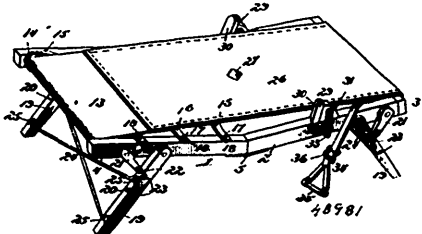
**No. 48,980. Method of Manufacturing Plush Fabrics. (Tissue de peluche.)**



Ira Tekrignill, Laurel Mount, Keighley, England, 17th May, 1895; 6 years.

*Claim.*—1st. A plush fabric into which are woven and combined a number of stretched elastic threads, secured in a manner that the finished fabric will stretch or contract, and adapt itself to varying movements. 2nd. Belts, lanolages or body wraps made of plush fabric, with which is combined threads of elastic inserted in the fabric, for the purpose as hereinbefore set forth.

**No. 48,981. Cot Bed. (Lit pliant.)**



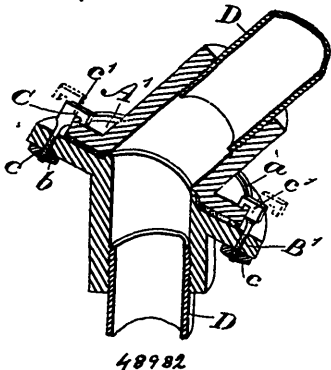
Delivan W. Scott, Watkins, New York, U.S.A., 17th May, 1895; 6 years.

*Claim.*—1st. In a folding cot, the combination of a frame, folding

legs pivotally attached to the frame and provided at their outer edges with slanted notches, inclined braces pivotally attached to and depending from the frame and arranged to engage detachably the notches of the legs, fastening devices detachably connecting the engaging ends of the braces to the legs and holding the braces in engagement with the notches, studs projecting from the legs and crossed tie-rods provided at their ends with hooks detachably engaging the studs of the legs, substantially as described. 2nd. In a folding obstetric cot, the combination of the supporting frame composed of two hinged sections, the fabric top secured at its ends to the frame and having its sides connected with the frame only at the head of the cot, the independent foot-rest slungly mounted on the opposite side bars of the frame, the hand straps attached to the side bars of the frame in rear of the foot-rests, and folding legs, substantially as described. 3rd. In a folding cot, the combination of the supporting frame composed of two hinged sections, one of the sections being provided on the side bars with studs, the fabric top secured at its ends to the frame and provided at the upper section of the frame or the head of the cot with tabs adapted to button over the studs of the frame, the hand-straps attached to the frame at the foot thereof, the independent foot-rests slidingly mounted on the side bars of the frame and located between the tabs and the hand straps, and folding legs supporting the frame, substantially as described.

**No. 48,982. Union Joint for Pipes.**

(Joint à pas à droite et gauche pour tuyaux.)

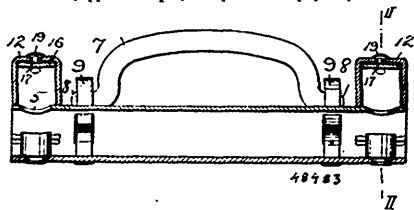


Louis Bredannaz, Toronto, Ontario, Canada, 20th May, 1895; 6 years.

**Claim.**—1st. The combination, with the two portions having the abutting flanges formed obliquely to their respective axes, of bolts extending through one flange and having the heads projecting over the edge of the abutting flange, as and for the purpose specified. 2nd. The combination, with two portions having the abutting flanges formed obliquely to their respective axes, and one flange of less diameter than the other and having a rim formed around it as specified, of bolts having L-shaped heads designed to grasp upon the rim, such bolts extending through the greater flange and being secured in position by suitable nuts, as and for the purpose specified.

**No. 48,983. Perforator for Letter Files, Etc.**

(Appareil à perforer pour serre-papier.)

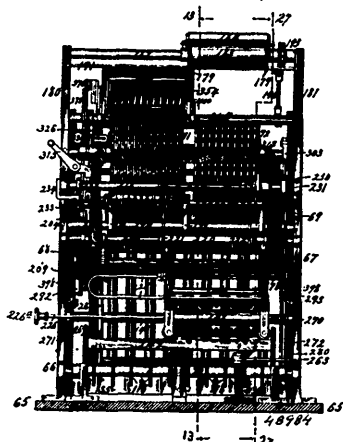


William Otterlein Gottwald, Ottawa, Ontario, Canada, 20th May, 1895; 6 years.

**Claim.** 1st. In a perforator for bill files or other purposes, the combination with a spring plate formed with matrix openings, of a receptacle for punchings mounted above said plate and openings, substantially as set forth. 2nd. In a perforator, the combination of a base plate provided with punches, a spring plate formed with

matrix openings adapted to register with said punches and situated above the latter, and receptacles for punchings mounted upon the upper or outer side of the spring plate over said openings and movable with the plate, substantially as set forth. 3rd. In a perforator, the combination, with a spring plate formed with a matrix opening, of a receptacle mounted upon said plate over the opening, a slide within the receptacle, a downward extension 20 at the inner end of the slide, and a door carried at the outer end of the slide, substantially as set forth. 4th. In a perforator, the combination, with the spring plate 4 having a matrix opening 5, of a receptacle mounted upon and carried by the said spring plate at the outer side of the opening and formed with a slot 18, a slide within the receptacle provided with a door, and a pin connecting the slide with said slot, substantially as set forth. 5th. In a perforator, the combination, with the spring plate 4 having a matrix opening, of a receptacle mounted on the outer side of the plate above the opening, a bent spring slide 16 within the receptacle, and a door carried by the slide, as set forth. 6th. The combination, with the spring plate of the perforator, of the receptacle provided with a slide, the inner end of which is bent downward to form the extension 20, and the outer end of which is bent downward to form a door and upward to form a means for withdrawing the slide, substantially as set forth.

**No. 48,984. Calculating Machine. (Machine à calculer.)**



William Wallace Hopkins, St. Louis, Missouri, U.S.A., 20th May, 1895; 6 years.

**Claim.** 1st. In adding machines having a series of registering mechanisms— one for each numerical order, printing devices recording the number registered, a motor impelling said registering mechanisms and printing devices, a carriage determining the numerical order in which the machine is working, and keys controlling said motor and carriage. 2nd. An adding machine having a series of adding-wheels registering the number added, printing devices, and a shiftable impression-taking device by which the different numbers registered may be printed by said printing devices, and the result of the numbers added and registered upon the adding-wheels may be printed directly from the said adding-wheels by shifting said impression-taking device. 3rd. The combination of registering wheels, printing devices for recording the different numbers registered, keys for operating said registering-wheels and printing devices, an impression-taking device travelling widthwise of the machine, a carriage for positioning said impression-taking device widthwise of the machine and determining from which of the printing devices an impression may be taken, a paper-sheet mounted independently of said carriage, and an inking ribbon at the opposite side of said paper-sheet from the said printing devices and between the paper-sheet and impression-taking device. 4th. The combination of registering wheels, printing devices, keys controlling said registering-wheels and printing devices, an impression taking device travelling widthwise of the machine, and determining from which of the printing devices an impression may be taken, a carriage for positioning said impression-taking device widthwise of the machine, a paper-sheet mounted independently of said carriage, an inking ribbon arranged across the paper-sheet between the impression-taking device and the paper-sheet, and actuating connections for vibrating said ink ribbon transversely of its length for the purpose described. 5th. The combination of a series of registering-wheels, a series of printing-wheels for recording the numbers registered, an impression-taking device travelling widthwise of the machine, a carriage for positioning said impression-taking device widthwise of the machine and determining from which of the

printing-wheels an impression may be taken, a bulletin sheet, a frame independent of said carriage and maintaining that side of the bulletin sheet away from the printing-wheels in view of the operator, keys for operating said registering and printing-wheels and carriage, and an inking ribbon at the opposite side of the bulletin sheet from said printing-wheels and between the bulletin sheet and the impression-taking device. 6th. The combination of a series of registering-wheels, a series of printing-wheels, a carriage determining which of the printing and adding wheels may be operated, an impression-taking device arranged in front of the printing-wheels, a bulletin sheet interposed between the printing-wheels and impression-taking device, an inking means arranged between the bulletin sheet and the impression-taking device, and keys suitably controlling the series of registering and printing-wheels, the carriage, and the impression-taking device. 7th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, and a carriage governed by said keys and determining which of the registering-wheels may be actuated. 8th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, a carriage governed by said keys and determining which of the registering-wheels may be actuated, a motor-winding mechanism, and connections intermediate the handle and the carriage by which the carriage is brought to the starting point at the same time the motor is wound. 9th. The combination of a series of registering-wheels, keys controlling the same, a series of carrying members suitably positioned by said registering-wheels during the operation of the keys controlling said registering-wheels, and a device operated as will actuating the said carrying members to carry after they have been positioned by the registering-wheels during the operation of the keys. 10th. The combination of a series of registering-wheels, keys controlling the same, a carriage governed by said keys and determining which of the registering-wheels may be actuated, a handle for bringing the carriage to its starting point, a carrying mechanism suitably positioned by the registering-wheels, and connections intermediate the said carrying mechanism and said handle whereby operating the handle brings the carriage to the starting point and causes the carrying mechanism to carry. 11th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, a carriage governed by said keys and determining which of the registering-wheels may be actuated, a motor-winding mechanism, a carrying mechanism suitably positioned by the registering-wheels, and actuating devices connecting the said handle to the carrying mechanism. 12th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, a carriage governed by the said keys and determining which of the registering-wheels may be actuated, a motor-winding mechanism, a handle for the motor-winding mechanism, connections intermediate the handle and the carriage by which the carriage is brought to the starting point at the same time the motor is wound, a carrying mechanism suitably positioned by the registering-wheels, and actuating devices connecting the said handle to the carrying mechanism. 13th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, a carriage governed by said wheels and determining which of the registering-wheels may be actuated, a motor-winding mechanism, a handle for the motor-winding mechanism, connections intermediate the carriage and motor winding mechanism, by which the carriage is brought to the starting point at the same time the motor is wound, printing devices recording the numbers registered, and paper-feeding devices operated by said handle. 14th. The combination of a series of registering-wheels, keys controlling the same, printing devices recording the numbers registered, a carrying mechanism suitably positioned by the registering-wheels, and a handle having suitable connections with the paper-feeding devices, and also connections with the carrying mechanism. 15th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, a motor-winding mechanism, a handle for said motor-winding mechanism, a carrying mechanism suitably positioned by the registering-wheels, printing devices recording the numbers registered, paper-feeding devices, and connections intermediate the handle and the paper-feeding devices and carrying mechanism. 16th. The combination of a series of registering-wheels, a motor for impelling the same, keys controlling the motor, a carriage governed by said keys and determining which of the registering-wheels may be actuated, a motor winding-mechanism, printing devices recording the numbers registered, paper-feeding devices, a carrying mechanism suitably positioned by the registering-wheels, and a handle having suitable connections with the motor-winding mechanism, the carriage, the paper-feeding devices, and carrying mechanism. 17th. The combination of a series of registering-wheels, a series of printing-wheels recording the numbers registered, a carriage determining which of the registering and printing wheels may be actuated, and a handle having suitable connections for bringing the carriage to the starting point and the printing-wheels to zero. 18th. The combination of a series of registering-wheels, a series of printing-wheels recording the numbers registered, paper-feeding devices, and a handle having suitable connections for bringing the carriage to the starting point and actuating the paper-feeding devices. 19th. The combination of a series of registering-wheels, a series of printing-wheels recording the numbers registered, paper-feeding devices, a carriage determining which of

the registering and printing wheels may be actuated, and a handle having suitable connections for bringing the printing wheels to zero, the carriage to a starting point, and actuating the paper-feeding devices. 20th. The combination of a series of registering wheels, a series of printing-wheels recording the numbers registered, paper-feeding devices, a carrying mechanism suitably positioned by the registering wheels, and a handle having suitable connections for bringing the printing-wheels to zero, actuating the paper-feeding devices, and operating the carrying mechanism. 21st. The combination of a series of registering wheels, a series of printing wheels recording the numbers registered, paper-feeding devices, a carrying mechanism suitably positioned by the registering wheels, a carriage determining which of the registering and printing wheels may be actuated, and a handle having suitable connections for bringing the printing wheels to zero, feeding the paper, operating the carrying mechanism, and returning the carriage to the starting point. 22nd. The combination of registering-wheels, keys controlling the same, printing devices, an impression-taking device travelling widthwise of the machine, or taking impressions from said printing devices, a carriage for positioning said impression-taking device widthwise of the machine, and determining from which of the printing devices an impression may be taken, a paper-sheet mounted independently of said carriage an inking ribbon, and a handle having suitable connections for returning the carriage and impression-taking device to the starting point and feeding the inking ribbon. 23rd. The combination of registering-wheels, carrying mechanism, a suitable motor for rotating the registering-wheels, printing devices, a carriage for determining which of the registering-wheels may be rotated and spacing the printing, and a handle having suitable connections for winding the motor, drawing the carriage to its starting point, feeding the paper, actuating the carrying mechanism, and bringing the printing devices to their zero position. 24th. The combination of registering-wheels, carrying mechanism, a suitable motor for rotating the registering-wheels, printing devices, an inking ribbon, a carriage for determining which of the registering-wheels may be rotated and spacing the printing, and a handle having suitable connections for effecting separation of the motive power from the registering-wheels, winding the motor, bringing the carriage to its starting point, feeding the paper and inking ribbon, and actuating the carrying mechanism. 25th. The combination of registering-wheels, a series of printing devices, a hammer for taking impressions from said printing devices, a carriage for determining from which of the printing devices an impression may be taken, and keys controlling the registering-wheels, the printing devices, the hammer and the carriage. 26th. The combination of registering-wheels, a series of printing devices, a hammer for taking impressions from said printing devices, a carriage for determining from which of the printing devices an impression may be taken, paper-feeding devices, keys controlling the registering-wheels, the printing devices, the hammer and the carriage, an inking ribbon, and a handle having suitable connections for feeding the inking ribbon and paper. 27th. The combination of registering-wheels, type-carrying devices for printing, an impression-taking appliance, a motor impelling the registering-wheels and positioning the type-carrying devices, and keys controlling said motor. 28th. The combination of registering-wheels, printing devices, a motor for impelling the registering-wheels and printing devices, a motor-winding mechanism, a carriage for spacing the printing, paper-feeding devices, and a handle having suitable connections with the motor-winding mechanism and paper-feeding devices. 29th. The combination of registering-wheels, printing devices, a motor impelling the registering wheels and the printing devices, a motor-winding mechanism, a carriage for spacing the printing, keys controlling the motor and carriage, and a handle having suitable connections with the motor-winding mechanism and the carriage whereby the carriage may be brought to the starting point and the motor wound by the same operation. 30th. The combination of registering-wheels, printing devices, a motor impelling the registering-wheels and the printing devices, a motor-winding mechanism, a carriage for spacing the printing, keys controlling the motor and carriage, paper-feeding devices, and a handle having suitable connections with the motor-winding mechanism and paper-feeding devices and carriage. 31st. The combination of registering wheels, a series of printing devices, a motor for impelling the registering-wheels and printing devices, a motor-winding mechanism, a carriage for spacing the printing, a hammer mounted upon the carriage for taking impressions from any one of said series of printing devices, keys controlling the motor, carriage and hammer, and a handle having suitable connections with the motor-winding mechanism and carriage, whereby the motor may be wound and the carriage brought to the starting point by said handle. 32nd. The combination of registering wheels, a series of printing devices, a motor impelling the registering wheels and the printing devices, a motor-winding mechanism, a carriage for spacing the printing, a hammer mounted upon the carriage for taking impressions from said printing devices, keys controlling the motor, carriage and hammer, paper-feeding devices, and a handle having suitable connections with the carriage, the motor-winding mechanism and paper-feeding devices. 33rd. The combination of registering-wheels, a series of printing devices, a motor impelling the registering wheels and the printing devices, a motor-winding mechanism, a carriage for spacing the printing, a hammer mounted upon the carriage for taking impressions from said printing devices, keys controlling the

motor, carriage and hammer, paper and inking ribbon feeding devices, and a handle having suitable connections with the carriage, the motor-winding mechanism and the paper and inking ribbon feeding devices. 34th. The combination of a series of registering-wheels, printing devices, a carriage determining which of the registering-wheels may be actuated and spacing the printing, a gear wheel carried by said carriage for imparting rotation to said registering-wheels, and keys governing said carriage and the extent of rotation of said gear-wheel. 35th. The combination of a series of registering-wheels, a motor for impelling the same, printing devices, a carriage determining which of the registering-wheels may be actuating and spacing the printing, a power wheel carried by the carriage and impelled by a series of escapement mechanism determining the extent of rotation of the said wheel, and keys governing said escapement and carriage. 36th. The combination of a series of registering-wheels, a motor, printing devices, a carriage for determining which of the registering-wheels may be actuated and spacing the printing, an axially moving wheel mounted upon the carriage and sliding upon a shaft rotated by the motor, an escapement mechanism governing the motor and determining the extent of rotation, and keys controlling the escapement. 37th. The combination of a series of registering-wheels, printing devices, a carriage determining which of the registering-wheels may be actuated and spacing the printing, an axially-moving wheel mounted upon the carriage and sliding upon a shaft which propels it, mechanism determining the extent of rotation of said shaft, and keys controlling said mechanism. 38th. The combination of a series of registering-wheels, a series of printing-wheels, means for taking impressions from said printing-wheels, suitably-impelled axially-moving wheels sliding upon a shaft and adapted to rotate said printing-wheels and registering-wheels, a carriage for propelling the axially-moving wheels in the direction of their axes, and keys controlling the rotation of the aforesaid shaft. 39th. The combination of a series of registering-wheels, a series of printing-wheels, arranged upon the same shaft, and means for taking impressions from the printing-wheels, two axially-moving wheels arranged upon a sleeve sliding upon a shaft, a carriage for propelling the said axially-moving wheels in the direction of their axes, a motor for rotating the aforesaid shaft and sleeve, a variable escapement governing said motor, and keys controlling said escapement. 40th. The combination of registering-wheels bearing suitable characters or type, gear-wheels attached thereto, idle wheels meshing with the aforesaid gear wheels, an axially-moving wheel adapted to mesh with said idle wheels, a carriage for propelling the axially-moving wheel in the direction of its axis, and keys controlling the carriage and the rotation of the axially-moving wheel. 41st. The combination of a series of registering-wheels, a series of printing-wheels, characters or type on the peripheries of said registering and printing wheels, a gear wheel attached to said printing wheels, two axially-moving wheels, a carriage for propelling said axially moving wheels in the direction of their axes, and keys controlling said carriage and the rotation of said axially-moving wheels. 42nd. The combination of a series of registering-wheels, a series of printing-wheels, gear wheels attached to said registering and printing wheels, idle wheels meshing with said gear-wheels, two axially-moving wheels each meshing with the corresponding idle wheel of each series of idle wheels, a sleeve upon which said axially-moving wheels are mounted, a shaft upon which said sleeve slides, a carriage impelling said sleeve longitudinally, a motor and suitable gearing rotating said shaft and sleeve, an escapement shaft suitably geared to said motor, an escapement governing said shaft and motor, and keys controlling said escapement, motor and carriage. 43rd. The combination of a series of registering-wheels, a series of printing-wheels loosely arranged upon the same shaft, two axially-moving wheels each adapted to rotate the corresponding wheels of the printing and registering-wheels, a shaft upon which said axially-moving wheels are mounted, a shaft upon which said sleeve slides, a carriage impelling said sleeve longitudinally, a motor and suitable gearing rotating said shaft and sleeve, an escapement shaft suitably geared to said motor, an escapement governing said shaft and motor, keys controlling said escapement, motor and carriage, a motor-winding mechanism, and a handle having suitable connections with the motor-winding mechanism and carriage, whereby the motor will be wound and the axially-moving wheels returned to their starting point along the said shaft. 44th. The combination of a series of registering-wheels, a series of printing-wheels, a carriage for controlling the motor, a carriage determining which of the registering-wheels may be actuated, a carriage impelling motor, an escapement governing the carriage-impelling motor, keys actuating both of said escapements, and a handle having suitable connections with the motor and with the carriage, whereby the two motors may be wound and the carriage returned to a starting point by the operation of said handle. 45th. The combination of registering-wheels, a motor, gear-wheels intermediate the motor and the registering-wheels, a rotating shaft, a carriage determining which of the motor, keys controlling said escapement and reversing means for changing the direction of rotation of gear-wheels rotating the registering-wheels having suitable gearing, a motor, two trains of gearing intermediate the motor and the gearing for the registering-wheels, a clutch adapted to be thrown into engagement with one or the other of said trains of gearing to effect rotation of the gearing of the registering-wheels, and operating means for said clutch extend-

ing upon the outside of the machine within reach of the operator as a means for reversing the direction of rotation of the registering-wheels to add or subtract at will. 46th. The combination of registering wheels, printing wheels, having the digits thereon repeated in two series in reverse order, a motor, gear-wheels intermediate the motor and the registering wheels for revolving the letter, a variable escapement controlled by the keys and also geared to said motor independently of the registering wheels, and reversing means for changing the direction of rotation of the gear-wheels intermediate the motor and the registering and printing-wheels. 48th. The combination of registering-wheels having the digits thereon repeated twice in regular succession, printing-wheels having the digits thereon repeated twice in regular reverse order, said registering and printing wheels being arranged upon the same shaft, a motor, gear-wheels intermediate the motor and the registering wheels for revolving the same, a variable escapement controlled by keys geared to said motor independently of the registering-wheels, reversing means for changing the direction of rotation of the gear-wheels intermediate the motor and the registering and printing-wheels, and a shiftable impression taking device normally co-operating with the printing-wheels, whereby the result registered may be printed directly from the registering wheels. 49th. The combination of registering-wheels, an axially-moving wheel for revolving the same, a carriage impelling the axially-moving wheel in the direction of its axis, a shaft rotating said axially-moving wheel, but upon which said axially moving wheel may slide, a motor, a train of gearing between said motor, a train of gearing between said motor and said shaft, a clutch upon said shaft suitably operated, by which the direction of rotation of the shaft may be changed, a variable escapement mechanism geared to the motor and driven always in the same direction, and keys controlling the escapement mechanism. 50th. The combination of registering-wheels, printing-wheels as described, two axially-moving wheels for revolving said registering and printing-wheels, a sleeve connecting the axially moving wheels, a carriage impelling the axially-moving wheels in the direction of their axes, a shaft rotating said axially-moving wheels, but upon which said axially moving wheels may slide, a motor, a train of gearing between said motor and said shaft, a clutch upon said shaft suitably operated, by which the direction of rotation of the shaft may be changed, and keys controlling the escapement mechanism. 51st. The combination in a calculating machine of loosely mounted registering-wheels, pawls normally locking said wheels, keys controlling said registering-wheels, and actuating appliances intermediate the keys and pawls, whereby said pawls will be unlocked by the operation of said keys from said registering-wheels independently of their rotation. 52nd. The combination of a series of registering-wheels, keys suitably controlling the same, pawls normally locking said registering-wheels, a carriage determining which of the registering-wheels may be actuated, and keys controlling the escapement mechanism mounted upon the carriage and operated by said keys to unlock the registering-wheel, corresponding to the numerical order in which the machine is working. 53rd. The combination of a series of registering-wheels, keys suitably controlling the same, pawls normally locking said registering-wheels, a carriage determining which of the registering-wheels may be actuated, a sliding cam, and a shaft upon which said cam is mounted, which said shaft is actuated by the keys and which cam is positioned by the carriage and adapted to impinge against and unlock the respective locking pawls from the registering-wheels. 54th. The combination in a calculating machine, of loosely mounted registering-wheels, loosely mounted printing-wheels, pawls normally locking said registering and printing-wheels, keys controlling both the registering and the printing wheels, and actuating appliances intermediate the keys and pawls, whereby said pawls will be unlocked by the operation of said keys from said registering and printing-wheels independently of their rotation. 55th. The combination of a series of registering wheels, a series of printing wheels, keys suitably controlling both of the registering and printing wheels, a carriage determining which of the registering and printing-wheels may be actuated, and unlocking means for said pawls actuated by the keys and positioned by the carriage to unlock the respective corresponding, printing and registering-wheels. 56th. The combination of a series of registering-wheels, a series of printing-wheels, keys suitably controlling both of the same, locking pawls for said registering and printing-wheels, a carriage determining which of said registering and printing-wheels may be actuated, two cams upon a shaft controlled by the carriage and sliding upon the shaft actuated by the keys, the said cams impinging against the respective locking pawls of the printing and registering wheels to unlock the same when the keys are operated. 57th. The combination of registering-wheels, a motor for rotating the same, a variable arresting mechanism for controlling said motor, a toothed wheel for restraining the rotation of the motor, a detent engaging the teeth of said toothed wheel, and keys for operating the said detent and governing the arresting mechanism. 58th. A variable escapement for a registering machine, consisting of a shaft, a motor, gear-wheels, a toothed gear, a toothed gear upon the said toothed gear, adapted to be suitably thrown in engagement and mesh with the teeth of said toothed gear, stops for limiting the travel of the said traveling toothed gear, and appliances for positioning the stops and unlocking the motor. 59th. A variable escapement for a registering machine, consisting of a shaft, a motor revolving the same, gearing upon said shaft, a series of vibrating levers each provided with a traveling rack adapted to be thrown in and out of

mesh with said gearing, stops for limiting the travel of the racks and arranged to permit the desired rotation to register the required number, and means for unlocking the motor when the racks are thrown into engagement with said gearing. 60th. A variable escapement for a registering machine, consisting of a shaft, a motor driving the same, gearing upon said shaft, a series of vibrating levers, each provided with a travelling rack adapted to be thrown in and out of mesh with said gearing, a key for each lever to put the racks in and out of mesh with the said gearing, stops for limiting the travel of the racks and arranged to permit the desired rotation to register the required number, and means for unlocking the motor when the keys are operated. 61st. A variable escapement for a registering machine, consisting of a shaft, a motor driving the same, gearing upon said shaft, a series of vibrating levers each provided with a travelling rack, a key for each lever, a plate at the lower end of said vibrating levers, with a slot having an inclined and a vertical part, and a pin on each key working in the slot in its respective plate, and normally resting in the inclined part thereof, stops for limiting the travel of the respective racks, and a locking pawl having suitable connections with the keys, whereby it unlocks the motor when the keys are depressed. 62nd. The combination of a series of registering-wheels, printing devices, an impression-taking means, a motor for rotating the registering-wheels and positioning the printing devices, an escapement governing the motor, key-operated appliances for setting the impression-taking means, and connections said appliances and the escapement, whereby the printing devices will be tripped by the escapement mechanism to print the number registered, for the purpose set forth. 63rd. The combination of a series of registering-wheels, printing-wheels, a motor for rotating the registering and printing-wheels, an escapement governing the motor, keys controlling the escapement, a bulletin sheet arranged over the printing-wheels, a printing hammer upon the opposite side of the bulletin sheet from the printing-wheels, a vibrating inking ribbon arranged between the bulletin sheet and said printing hammer, connections intermediate the keys and printing hammer and inking ribbon and printing hammer, will be tripped by the operation of the keys, and appliances intermediate the printing hammer and the escapement, whereby the printing hammer will be tripped to print the number registered by the escapement mechanism, for the purpose set forth. 64th. The combination of a series of registering-wheels, a series of printing-wheels, a motor for rotating the registering and printing-wheels, an escapement governing the motor, a carriage determining which of the printing and registering-wheels may be actuated, a bulletin sheet arranged over the printing-wheels, a vibrating inking ribbon arranged between the bulletin sheet and a printing hammer mounted upon the carriage, keys controlling the escapement, carriage, inking ribbon and printing hammer, and tripping appliances intermediate the printing hammer and escapement. 65th. The combination of registering-wheels, printing-wheels, a motor for rotating said wheels, an impression-taking device, keys for setting the impression-taking device, and a motor escapement governed by the keys and controlling the impression taking device, said escapement consisting of a travelling means carried by vibrating levers, one for each number key, which travelling means actuates said tripping device at the limit of motion, a zero key having a corresponding vibrating lever, and a stationary escapement device carried thereby, and connections intermediate the tripping mechanism and keys and carried by said vibrating lever, whereby the tripping mechanism will be actuated by the movement of the zero key direct. 66th. The combination of registering wheels, a travelling carriage for determining which of the registering-wheels may be rotated, keys controlling the registering-wheels and carriage, and reversing means for changing the direction in which the keys controlling the registering-wheels cause the carriage to travel. 67th. The combination of registering-wheels a carriage determining which of the registering-wheels may be actuated, a spindle controlled by finger keys and gear-wheel carried thereby, and two racks upon said carriage with either of which the said gear-wheel may be caused to mesh at will at diametrically opposite parts of said wheel, whereby the direction of travel of the carriage may be changed at will. 68th. The combination of registering-wheels, a carriage determining which of the registering-wheels may be actuated, a motor impelling said carriage, keys controlling the carriage, and a reversing means for changing the direction in which the motor impels the carriage. 69th. The combination of registering-wheels, a carriage determining which of the keys may be actuated, a spindle controlled by finger keys, a gear-wheel controlling said carriage, two racks upon said carriage, a spur-wheel upon said shaft adapted to engage one or the other of said racks at diametrically opposite points, an escapement for said spindle, finger keys governing said escapement, and means for placing said spur-wheel into mesh with one or the other of said racks, for the purpose described. 70th. The combination of a series of registering-wheels, printing devices, a carriage governing the printing devices and determining which of the registering-wheels may be actuated, keys controlling said carriage, and reversing means for changing the direction of travel of the carriage. 71st. The combination of registering-wheels, a carriage determining which of the registering-wheels may be actuated, a handle having a uniform range of movement, and actuating appliances intermediate said handle and carriage, whereby the carriage may be brought to the starting point in whatever position it is by the uniform motion of the said handle.

72nd. The combination of registering-wheels, a carriage determining which of the registering-wheels may be actuated, a bell-crank lever suitably connected to said carriage, and a handle having suitably connected to said carriage, and a handle having suitably adapted to impinge against said bell-crank lever during its travel and restore the carriage to its starting position. 73rd. The combination of registering-wheels, a suitable motor for rotating the registering-wheels, keys controlling the motor, a handle having a uniform range of movement, and motor-winding mechanism intermediate the handle and the motor and constructed to store into said motor by the uniform movement of the handle the variable amount of energy expended by the motor. 74th. The combination of registering-wheels, a suitable motor for rotating the registering-wheels, keys controlling the motor, a handle having a uniform range of movement, and motor-winding mechanism intermediate the handle and the motor and provided with a flexible connection whereby the motor will be moved by the uniform movement of the handle to an extent equal to the power expended by the motor. 75th. The combination of registering-wheels, a suitable motor for rotating the wheels, a handle moved back and forth, a spool rotated to and fro thereby through the instrumentality of suitable connections, and a flexible connection between said motor and said spool, for the purpose set forth. 76th. The combination of registering-wheels, a suitable motor for rotating the registering-wheels, positive gearing intermediate the motor and the registering wheels, a pawl and ratchet connection between the motor and said gearing, a drum for rotating the motor, a flexible connection adapted to be wound upon and unwound from said drum, and a handle with suitable connections for unwinding said flexible connection from the drum to wind the motor. 77th. The combination of registering-wheels, a carriage determining which of the registering-wheels may be actuated, a motor impelling said carriage through the instrumentality of a suitable spindle an escapement governing the spindle, said escapement consisting of a ratchet-wheel fixed to said spindle, a movable spring-actuated ratchet-wheel adjacent thereto having a limit of motion equal to one step of the carriage, a pawl normally engaged with the movable ratchet-wheel and keys having suitable connections for vibrating said pawl back and forth to feed the carriage step by step. 78th. The combination of a series of registering-wheels, arranged side by side upon a shaft, a bar normally out of engagement therewith for aligning said wheels to maintain them in co-incident radial position, a motor for rotating said registering-wheels, an escapement for said motor controlled by finger keys and connection intermediate the escapement and said bar by which the bar will be thrown against the wheels to align them after the machine has done its work. 79th. The combination of a series of registering-wheels arranged side by side upon a shaft, printing-wheels similarly arranged upon the same shaft, idle wheels intermediate said wheels and power transmitting wheels, a bar normally out of engagement therewith for aligning said idle wheels to maintain them in co-incident radial position, and connections for actuating said bar and throwing it against said idle wheels to thereby align the printing and registering wheels after the machine has done its work. 80th. The combination in a calculating machine, of registering devices a of printing-wheels loosely journaled, a pawl for each printing-wheel having a notched end, a series of printing-wheels arranged side by side upon a shaft, printing-wheels similarly arranged upon the same shaft, keys controlling said gearing and unlocking said paws, and mechanism for returning said printing-wheels to zero when suitably operated and causing one of said pins to ride over the curved ends of said paws and automatically lock said printing-wheels. 81. The combination in a calculating machine, of registering-wheels a motor and suitable gearing rotating the registering-wheels, reversing means for said gearing to change the direction of rotation, a series of printing-wheels loosely journaled, and revolved by said motor and gearing, a pawl for each printing-wheel having a notched end and rounded at both sides of the notch, two pins on each printing wheel, one normally engaging said notch to lock the printing-wheels at zero, keys controlling the motor and gearing and unlocking said paws, and mechanism for returning said printing-wheels to zero when rotated in either direction and causing said pins to ride over the curved ends of said paws and automatically lock said printing-wheels. 82nd. The combination in a calculating machine, of registering devices, a series of printing-wheels loosely journaled, gearing normally mounted upon a shaft for rotating the said wheels, a pawl normally locked to said pins of zero, keys controlling said gearing and unlocking said paws from said wheels independently of their rotation, a longitudinally movable key carried by said shaft and provided with suitable pins adapted to engage pins upon said loosely mounted gearing when properly operated, and manually-operated means for rotating said shaft and throwing the pins of said latter mentioned key in the path of the pins upon said gearing to bring said printing-wheels to zero. 83rd. The combination in a calculating machine, of registering devices loosely mounted printing wheels recording the numbers registered, paws normally locking said wheels to zero when suitably operated, and actuating appliances intermediate the keys and the wheels, whereby said paws will be unlocked by the operation of said keys from said printing-wheels independently of their rotation. 84th. The combination in a calculating machine, of registering devices, loosely-mounted printing-wheels recording the numbers registered, paws

normally locking said wheels at zero, keys controlling said printing-wheels and unlocking said pawls independently of the rotation of the printing-wheels, manually operated mechanism for bringing said wheels to zero, and automatic means for locking said wheels at zero. 85th. The combination of a series of registering-wheel, loosely mounted, gear-wheels therefor also loosely mounted, a key in a shaft having suitable pins thereon and capable of longitudinal movement, and upon said gear-wheels normally within the path of the pins upon said key, a manually operated means for moving the key longitudinally to throw its pins in the path of the pins on said gear-wheels, and actuating mechanism operated at will for rotating said shaft to bring said registering-wheels to zero. 86th. The combination of a series of registering wheels loosely mounted, pawls normally locking said wheels, keys, appliances operated by the keys to unlock the respective pawls, actuating means for unlocking said pawls at the will of the operator, and manually-operated mechanism for bringing said wheels to zero after being unlocked. 87th. The combination of a series of registering-wheels loosely mounted upon a shaft, pawls therefor positively locking said wheels against rotation, actuating means for unlocking said pawls at the will of the operator, manually-operated mechanism for bringing said wheels to zero after being unlocked, and fingers adapted to be thrown into engagement with a suitably notched disc carried by said wheels, whereby the registering-wheels after being brought to zero will be arrested thereat. 88th. The combination of a series of registering-wheels loosely mounted upon a shaft, pawls therefor positively locking said registering-wheels against rotation, manually-operated means for unlocking said pawls and bringing said registering-wheels to zero, a suitably notched disc carried by each registering-wheel, fingers adapted to be thrown into engagement with each of said notched discs, and connections between said fingers and the manually-operated means for unlocking the said pawls, whereby the fingers will be thrown in contact with said notched discs by manually operating the pawl-unlocking means, to arrest the registering wheels at zero. 89th. The combination of a series of registering wheels, a series of printing-wheels, gear-wheels for both the registering and printing-wheels loosely mounted upon a shaft, a handle having connections and gearing for rotating said shaft each time the handle is pulled, restoring means for bringing the printing-wheels to zero each time the handle is operated and the shaft rotated, and a finger piece for causing the registering wheels to be brought to zero at will when said handle is operated. 90th. The combination of a series of registering-wheels, a series of printing wheels, gear-wheels therefor loosely mounted upon a shaft, a handle having connections and gearing for rotating said shaft each time the handle is pulled, a key seat in said shaft having therein two keys with pins extending from the same, one key operating in connection with the printing wheels and the other in connection with the registering-wheels, pins upon the gear-wheels normally out of the path of the pins upon the keys, manually-operated means for throwing the pins upon the key of the printing wheels in the path of the pins upon the gear-wheels when the handle is pulled, and connections operating at will the other key to throw its pins in the path of the pins upon the gear wheels of the registering-wheels. 91st. The combination, with a registering machine, of printing-wheels, gearing for revolving the same, a carriage for spacing the printing, keys governing the carriage and gearing, and manually-operated means for effecting a separation of said gearing and printing-wheels, and restoring mechanism operated at will for bringing said printing wheels to zero after the aforesaid separation has been effected. 92nd. The combination of a series of registering wheels loosely mounted, a series of printing-wheels also loosely mounted, two axially-moving wheels each revolving in the opposite direction of the registering and printing-wheels, a carriage positioning the axially-moving wheels and determining which of the printing and registering wheels may be actuated, keys governing said carriage and the rotation of said axially-moving wheels, manually operated mechanism for effecting a separation of said axially-moving wheels and the registering and printing wheels, and restoring means for bringing the printing and registering wheels to zero after the separation has been effected. 93rd. The combination in a registering and recording machine, of registering-wheels and printing-wheels, a suitable motive power for rotating said registering and printing-wheels, a movable frame in which said motive power is mounted, manually-operated mechanism for actuating the movable frame to separate the motive power from the printing and registering wheels, and actuating means for restoring said printing and registering wheels to zero at the will of the operator. 94th. The combination of a series of registering-wheels, printing-wheels, a printing device for taking an impression therefrom, axially-moving wheels for revolving said registering and printing-wheels, a carriage determining which of the registering-wheels may be actuated and spacing the printing, a shaft for rotating said axially-moving wheels and along which said wheels slide, keys controlling said carriage and the rotation of said axially-moving wheels, a motor frame in which said keys are mounted, means for opening the movable frame to throw axially-moving wheels out of mesh with the registering and printing wheels, and manually operated mechanism for bringing said registering and printing wheels to zero after the separation has been effected. 95th. The combination of a series of registering-wheels, an axially moving wheel for revolving said registering wheels, a carriage determining which of the registering wheels may be actuated, a shaft for rotating said axially-moving wheel and along which said wheel slides, a

motor for impelling said shaft and suitably geared thereto, keys controlling said carriage and motor, a movable frame in which said motor and shaft are mounted, actuating means for effecting a separation of said axially-moving wheel and registering-wheels by operating the movable frame, and manually-operated mechanism for bringing the registering-wheels to zero. 96th. The combination of a series of registering-wheels, an axially-moving wheel for revolving said registering-wheels, a carriage determining which of the registering-wheels may be actuated, a shaft for rotating said axially-moving wheels and along which said wheel slides, a motor for impelling said shaft and suitably geared thereto, an escapement for said motor, keys controlling said carriage and motor, a movable frame in which said motor shaft, and escapement are mounted, actuating means for said movable frame effecting separation of said axially-moving wheel from the registering-wheels, and manually-operated mechanism for bringing the registering-wheels to zero. 97th. The combination of a series of registering-wheels, a series of printing wheels, a device for taking an impression therefrom, two axially-moving wheels each revolving the corresponding registering and printing wheel, a carriage determining which of the registering and printing-wheels may be actuated and spacing the printing, a shaft upon which said axially-moving wheels are mounted, a sleeve connecting said axially-moving wheels and along which shaft said sleeve slides, a motor for impelling said shaft, an escapement for said motor, keys controlling said carriage and escapement, a movable frame in which said shaft, motor and escapement are mounted, manually-operated means for actuating said movable frame to effect a separation of said axially-moving wheels from the registering and printing-wheels, and restoring mechanism for thereafter bringing the registering and printing wheels to zero after the separation. 98th. The combination with a registering machine, of a series of loosely mounted printing-wheels, a key resting in a seat in a shaft and having suitable pins normally out of the path of pins upon the gear-wheels for rotating said printing-wheels, an impression-taking device adapted to print from said printing-wheels, a motor having suitable gearing for actuating said printing-wheels, a carriage determining which of the printing-wheels may be actuated, a movable frame in which the motor and gearing is mounted, keys controlling the motor and carriage, manually-operated mechanism for actuating the movable frame to effect a separation of the motor-gearing of the printing-wheels, automatic means for shifting the pins on said key in the path of pins on the printing wheel gears by the operation of said movable frame, and connections for rotating the shaft carrying said key whereby the printing-wheels may be brought to zero. 99th. The combination in a registering machine of registering wheels, a suitable motive power, an oscillating frame in which said motive power is mounted, keys controlling said motive power to position the registering-wheels, a handle having suitable connections for operating said oscillating frame to disengage the motive power from the registering-wheels, stops limiting the movement of said oscillating frame, and manually-operated mechanism for bringing the registering wheels to zero after each disengagement. 100th. The combination of a series of registering-wheels, an axially-moving wheel adapted to revolve each of the same *scintilla*, a shaft upon which said axially-moving wheel slides, a carriage positioning said axially-moving wheel and determining which of the registering-wheels may be actuated, keys controlling said carriage and the revolution of said axially-moving wheel, a movable frame in which said shaft is mounted, fixed ways in which said carriage travels and a swinging connection between said shaft and said carriage. 101st. The combination of a series of registering wheels, a series of printing-wheels, two axially-moving wheels for revolving the same, a carriage impelling said axially-moving wheels, automatic means for shifting the shaft upon which said wheels slide, a motor rotating said shaft, an escapement for the motor, a movable frame in which the motive power and escapement are mounted, keys governing the carriage and escapement, a motor winding mechanism, and a handle having suitable connection with the carriage and with said movable frame, and also with the motor winding mechanism, whereby the registering and printing wheels will be brought to zero, the carriage to its starting point, and the motor wound. 102nd. The combination of registering-wheels of printing-wheels recording the numbers registered, a geared motive power suitably controlled for positioning and printing and registering wheels, a movable frame in which said motive power is mounted, a handle for operating the movable frame, paper-feeding devices and connections between said movable frame and the paper-feeding devices, whereby the paper will be fed by the actuation of said movable frame. 103rd. The combination of registering-wheels of printing wheels recording the numbers registered, a geared motive power suitably controlled for positioning the printing and registering-wheels, a movable frame in which said motive power is mounted, a handle for actuating the movable frame, ink-ribbon feeding devices and a motor frame in which said ink-ribbon feeding device is mounted, whereby the ink-ribbon will be fed by the actuation of said movable frame. 104th. A calculating machine having a series of registering-wheels provided with printing characters, printing devices for recording the different numbers registered, impression-taking mechanism for printing, and a lip or ridge adjacent to each of the printing characters upon said registering-wheels, whereby a line may be drawn in printing from said registering wheels. 105th. The combination of a series of registering-wheels, keys controlling same, a carrying mechanism, the members of which are

set to carry during the operation of the keys, and means for actuating the carrying members to carry after the operation of the keys and after all the carrying members have been set. 107. The combination of a series of carrying members, a series of registering-wheels provided with suitable carrying-teeth, connections between the said carrying members, whereby one carrying member may position another when the latter's corresponding registering-wheel is one step removed from carrying position, and means for actuating the members to carry after they have been positioned. 107th. The combination of a series of carrying members, a series of registering-wheels provided with suitable carrying-teeth, latches for holding the said carrying members out of carrying position, device connected with the carrying members and interrelates the said latches and the carrying-teeth, whereby one carrying member may unlatch another when the latter's corresponding registering-wheel is one step removed from carrying position, and means for actuating the carrying members to carry after they have been unlatched. 108th. The combination of a series of carrying-bars, a series of registering-wheels provided with suitable carrying-teeth, latches for maintaining said carrying bars out of carrying-position, a bell-crank lever carried by each of said carrying-bars and suitably connected to the latch for the bar of the next higher order, whereby one carrying bar, when one latch has been unlatched another, when the latter's corresponding registering-wheel is one step removed from carrying position, and means for actuating the carrying-bars to carry after they have been unlatched. 109th. The combination with registering devices of a carrying mechanism comprising a series of carrying mechanisms co-operating with said registering devices, locking means for normally holding said carrying members out of position, carrying teeth operated by the registering devices actuating respectively said means to suitably position the carrying-bars to carry, actuating mechanism for reciprocating the carrying-bars to carry after the carrying position, and additional locking means for locking the non-positioned carrying members out of carrying position when the latter mechanism is actuated. 110th. The combination with registering devices of a carrying mechanism comprising a series of carrying-bars co-operating with the registering devices, locking means for normally holding said carrying-bars out of position, carrying teeth operated by the registering devices actuating respectively said means to suitably position the carrying-bars to carry, actuating mechanism for reciprocating the carrying-bars to carry after the carrying position, and connections intermediate said rod and the latter mechanism, whereby the rod is operated by the actuation of said mechanism. 111th. A carrying mechanism comprising a series of carrying members co-operating with registering devices and normally held out of carrying position, carrying-teeth operated by the registering devices positioning said carrying members to carry, actuating mechanism for causing the carrying members to carry after being suitably positioned by the carrying-teeth, locking means brought into requisition by actuating mechanism to serve as an additional safeguard against the non-positioned carrying members carrying when said mechanism actuates said carrying members, and appliances also operated by the actuating mechanism restoring said parts to their normal position. 112th. The combination of a series of registering members normally locked against rotation, a series of carrying members adapted to co-operate therewith, and connections between the carrying members and the locking means for the registering members, whereby the registering members will be unlocked when the carrying members effect carrying. 113th. The combination of a series of registering wheels adapted for locking said carrying-bars against rotation, a series of carrying-bars adapted to co-operate with the registering-wheels, locking means for normally holding said carrying-bars out of carrying position, suitable connections therefor, carrying-teeth for operating said connections to position said bars to carry, unlocking devices intermediate the locking pawls and the carrying-bars normally disengaged by the carrying-bars but connected therewith when said bars are positioned to carry, and actuating mechanism for reciprocating said bars, whereby the registering-wheels will be unlocked and the carrying effected. 114th. The combination of a series of registering-wheels adapted for locking said registering-wheels against rotation, a series of carrying members adapted to co-operate with the registering-wheels, locking means for normally holding said carrying members out of carrying position, suitable connections therefor, carrying-teeth for operating said connections to position said members to carry, devices intermediate the locking pawls and the carrying members normally disengaged by the carrying members but connected therewith when said members are positioned to carry, actuating mechanism for causing the carrying members to unlock the pawls and carry after being suitably positioned by the carrying-teeth, and additional locking means brought into requisition by the latter mechanism to prevent accidental carrying of the non-positioned carrying members and the accidental unlocking of the corresponding registering-wheels. 115th. The combination with registering-wheels of a carrying mechanism comprising a series of carrying-bars co-operating with said registering-wheels, locking means normally holding said bars out of carrying position, carrying-teeth operated by the registering-wheels actuating said locking means to suitably position the carrying-bars to carry, actuating mechanism for reciprocating the carrying-bars to carry after being suitably positioned, and a handle

for operating said mechanism independently of the registering mechanism proper. 116th. The combination with registering devices of a carrying mechanism comprising a series of carrying members adapted to co-operate with said registering devices, locking means normally holding said carrying members out of carrying position, carrying teeth operated by the registering devices, to unlock the carrying members, a rest for holding the carrying members out of carrying position after being unlocked, and actuating mechanism for operating said rest to bring the carrying members into carrying position and for actuating said carrying members to carry. 117th. The combination with registering wheels of a carrying mechanism comprising a series of carrying-bars co-operating with the registering-wheels, a latch normally locking said carrying bars out of carrying position, a series of carrying-teeth operated by the registering-wheels unlocking said latches, a rest for holding the carrying-bars out of carrying position after being unlocked, actuating mechanism for reciprocating said carrying bars to carry, and a handle having suitable connections with the said rest and actuating mechanism, whereby the carrying-bars will be brought into carrying position and carrying effected by the operation of said handle. 118th. The combination of a series of registering-wheels, a series of carrying-bars co-operating therewith, a reciprocating frame in which said bars are mounted, a fixed frame carrying and reciprocating frame, a rock-shaft mounted upon the fixed frame and having arms at each end connected with the reciprocating frame at each side, and a handle having suitable connections with said rock-shaft, whereby the movement of the handle will reciprocate said movable frame to actuate the carrying bars for carrying. 119th. The combination of a series of registering-wheels, a series of carrying bars co-operating therewith, a reciprocating frame in which said bars are mounted, a fixed frame carrying said reciprocating frame, latches for said carrying bars having suitable connections operated respectively by carrying-teeth for unlocking said carrying bars, a rest upon which said carrying bars fall after being unlocked, said latches and rest being carried by said reciprocating frame, actuating mechanism for moving the reciprocating frame and operating the carrying-bar rest, and a handle for operating said actuating mechanism. 120th. The combination with a registering machine, of a series of carrying bars normally held from carrying position, a reciprocating frame in which said bars are mounted, a slotted plate, and connections intermediate said slotted plate and reciprocating frame for actuating said reciprocating frame in one or the other direction to add or subtract at will from carrying position, a series of carrying bars mounted upon the fixed frame and normally held from carrying position, a reciprocating frame in which said bars are mounted, a slotted plate, and connections intermediate said slotted plate and reciprocating frame, a T-lever suitably attached to said slotted plate, and actuating means maintaining the T-lever in either one of two opposite positions and adapted to operate the slotted plate in reverse directions, and thereby to move the reciprocating frame and carrying bars in one or the other direction to add or subtract. 121st. The combination with a registering machine, of a series of carrying bars normally held from carrying position, a reciprocating frame in which said bars are mounted, a slotted plate, operating connections intermediate said slotted plate and reciprocating frame, a T-lever suitably attached to said slotted plate, and a member or members adapted to engage one or the other opposite arms of said T-lever and maintain and actuate said T-lever oppositely, whereby the slotted plate, its connections and the carrying bars will be moved in one or the other direction to add or subtract. 122d. The combination of a series of registering-wheels, a series of carrying bars co-operating therewith, a reciprocating frame in which said bars are mounted, a fixed frame carrying and reciprocating frame, latches for said carrying bars having suitable connections operated respectively by carrying-teeth for unlocking said carrying bars, a rest upon which said carrying bars fall after being unlocked, said latches and rest being carried by said reciprocating frame, a rock-shaft mounted upon the fixed frame and having arms at each end connected with the reciprocating frame at each end, a plate having slots therein as described in which work pins connected with said rock-shaft and rest, and suitable actuating means for reciprocating said slotted plate to vibrate the reciprocating frame and operate the carrying-bar rest. 123th. The combination of a series of registering-wheels, a series of carrying bars co-operating therewith, a reciprocating frame in which said bars are mounted, a fixed frame carrying said reciprocating frame, latches for said carrying bars having suitable connections operated respectively by carrying-teeth for unlocking said carrying bars, a rest upon which said carrying bars fall after being unlocked, said latches and rest being carried by said reciprocating frame, a rock-shaft having arms at each end connected with the reciprocating frame, said rock-shaft being mounted upon the fixed frame, a plate having slots therein described in which work pins connected with said rock-shaft and rest, and a handle having suitable connections for operating the rest and a rest at the will of the operator and independently of power derived from either mechanism of the machine. 125th. The combination of a series of registering-wheels, a series of carrying bars co-operating therewith, a reciprocating frame in which said bars are mounted, a fixed frame carrying said reciprocating frame, latches for said carrying bars having suitable connections operated respectively by carrying-teeth for unlocking said carrying bars, a rest upon which said carrying bars fall after being unlocked, said latches and rest being carried by said reciprocating frame, a rock-shaft mounted upon the fixed frame



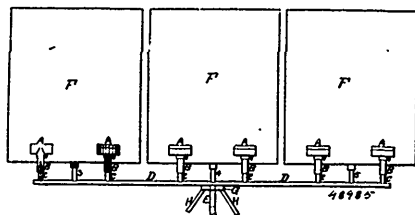
and having arms at each end connected with the reciprocating frame, a plate having slots therein as described in which work pins connected with said rock-shaft and rest, a swinging rod carried by said reciprocating frame and adapted to pass between the latched and unlatched carrying bars, connections between said swinging rod and the carrying-bar rest by which said rod will be positioned beneath the unlatched carrying bars when the rest is lowered, actuating mechanism between said slotted plate and a suitably located handle whereby said slotted plate may be reciprocated to lower the rest, position the swinging rod, a plate, the reciprocating frame and carrying bars to carry, and also restore said parts to their normal position.

126th. A carrying mechanism comprising a series of members moved in one direction to add, for instance, and in the other direction to subtract, for instance, a handle for actuating said carrying mechanism at the will of the operator and independently of the movements of the registering apparatus proper, and reversible connections between said handle and said carrying mechanism, whereby the said carrying mechanism may be made to carry in either direction. 127th. The combination with the registering-wheels of a carrying mechanism comprising a series of carrying bars normally away from the registering-wheels and normally maintained in a rearward position for instance, carrying-teeth, suitable connections operated thereby for unlatching said bars, actuating mechanism for moving said bars forwardly for instance, to carry for addition, for example, and reversible connections in said actuating mechanism, whereby the said mechanism may position said carrying bars forwardly and move them rearwardly for instance, to carry for subtraction, for example. 128th. The combination with the registering-wheels for carrying mechanism comprising a series of carrying bars, a reciprocating frame in which said carrying bars are normally locked from the registering-wheels, carrying teeth having suitable connections for unlatching said bars, a rest upon which said bars drop after being unlatched and before engaging the registering-wheels, means normally maintaining the reciprocating frame in a rearward position for instance, mechanism for moving said reciprocating frame forwardly for instance, to carry for addition, for example, a handle having suitable connections with said mechanism and reversible connections comprised in the aforesaid connections for causing said mechanism to move said reciprocating frame in the opposite direction, for example, to carry for subtraction, but to operate in other respects the same as before. 129th. The combination of a series of registering-wheels, pawls for locking the same against rotation, a series of carrying-bars adapted to be moved in one or the other direction to add or subtract, means for positioning said bars to carry, and operating devices between said locking pawls and carrying bars, normally engaged with each other but adapted to engage when in the act of carrying, said carrying bars and devices being constructed to operate in either direction for addition and subtraction. 130th. The combination of a series of registering-wheels, pawls for locking the same against rotation, a series of carrying bars having two notches and adapted to be moved in one or the other direction to add or subtract, means for positioning said bars to carry a two-way tilting lever for each bar having a pin adapted to be engaged by one or the other notch in its carrying bar when carrying, according to whether the carrying mechanism is in position to add or subtract, and an arm pivoted to each pawl and engaging the other end of said levers, whereby said arms will be depressed and the registering wheels unlatched, when said levers are moved in either direction by said carrying bars to add or subtract. 131st. A carrying mechanism adapted to be moved in one direction to carry for addition, for instance, and in the other direction to carry for subtraction, for instance, in combination with operating means for actuating said carrying mechanism, and a T-lever between said operating means and carrying mechanism, whereby the carrying mechanism may be moved in a rearward position and moved forwardly by said means to carry for addition, for instance, and the same means may also be set in a forward position and moved rearwardly to carry for subtraction, for instance. 132nd. A carrying mechanism adapted to be moved in one direction to carry for addition, for instance, and in the other direction to carry for subtraction, for instance, a handle for actuating said carrying mechanism at the will of the operator independently of power derived from the registering apparatus, and a T-lever between the handle connections and the carrying mechanism, whereby the carrying mechanism may be set in a rearward position and moved forwardly by said handle connections and a T-lever, to carry for addition, for instance, and may also be set in a forward position and moved rearwardly by said parts to carry for subtraction, for instance. 133rd. A carrying mechanism adapted to be moved in one direction to carry for adding, for instance, and in the other direction to carry for subtracting, for instance, in combination with a T-lever for actuating said carrying mechanism having suitable connections therewith, a member or members adapted to engage one or the other of the opposite arms of said T-lever at opposite points of said member or members, means for reciprocating said member or members to actuate the T-lever and carrying mechanism to carry in one or the other direction. 134th. A carrying mechanism adapted to be moved in one direction to carry for addition, for instance, and in the other direction to carry for subtraction, for instance, in combination with a T-lever for actuating said carrying mechanism having suitable connections therewith, a member or members adapted to engage one or the other opposite arms of said T-lever at opposite points of said member or members and a handle having suitable connection with said

member or members for reciprocating the same, said handle being operated at the will of the operator independently of power derived from the registering mechanism. 135th. A carrying mechanism adapted to be moved in one direction to carry for addition, for instance, and in the other direction to carry for subtraction, for instance, in combination with a T-lever for actuating said carrying mechanism having suitable connections therewith, a member or members adapted to engage one or the other of the opposite arms of said T-lever at opposite points of said member or members, operating means for reciprocating said member or members to actuate the T-lever and carrying mechanism to carry in one or the other direction, registering-wheels gearing for impelling the registering-wheels, a reversing means for changing the direction of rotation of said gearing and registering-wheels to add or subtract, for instance, a positioning appliance for operating said reversing means, having suitable connection with the member or members engaging the T-lever which operates the carrying mechanism, whereby the carrying mechanism may be reversed in operation at the same time that the direction of rotation of the registering-wheels is changed. 136th. A carrying mechanism adapted to be moved in one direction to carry for addition, for instance, and in the other direction to carry for subtraction, for instance, in combination with a T-lever for actuating said carrying mechanism having suitable connections therewith, a quadrangular part notched interiorly at opposite sides, one or the other of said notches engaging one pin or the other on opposite ends of said T-lever, a handle having suitable connections for reciprocating said quadrangular part to actuate the T-lever and carrying mechanism to carry in one or the other direction, registering-wheels gearing for impelling the registering-wheels, a clutch for changing the direction of rotation of said gearing and registering-wheels to add or subtract for instance, and a rotary longitudinally movable spindle having suitable connections with the clutch and with the quadrangular part, whereby the carrying mechanism may be revised in operation at the same time that the registering-wheels are changed in direction of rotation.

#### No. 48,985. Flash Light Machine.

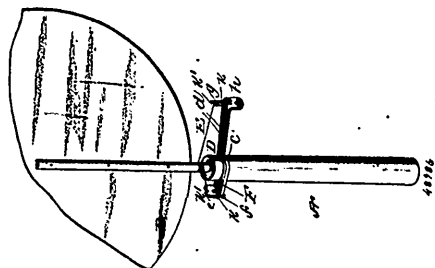
(Machine à jet de flamme.)



James H. Hopkins, St. Thomas, Ontario, Canada, 20th May, 1895; 6 years.

*Claim.*—1st. The combination in a flash-light machine of any number of spirit lamps with reflectors which may be adjusted vertically, angularly and obliquely, substantially as and for the purpose hereinbefore set forth. 2nd. In a flash-light machine, the combination of a tubular lamp-bar, with tubular lamp-stands having valves therein and a tubular spindle for supporting the whole on a tripod, substantially as and for the purpose hereinbefore set forth.

#### No. 48,986. Rotating Fan. (Evan tail rotatoire.)

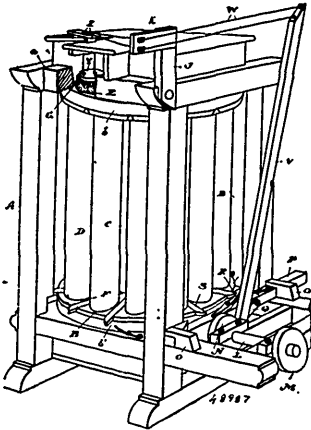


Ira F. Stump, Canton, Ohio, U.S.A., 20th May, 1895; 6 years.

*Claim.*—1st. The combination of the handle A, provided with the bore a, the fan stem B, having attached thereto a fan blade, the reciprocating bars d, having attached thereto the right angled portion e, the arm g, and the push button or plate, the cord F, wrapped

around the fan stem, and the elastic band F, substantially as and for the purpose specified. 2nd. The combination of the handle A, provided with the notches or recesses c, the rotating fan stem B, having attached thereto a fan blade, and means for rotating the fan stem and blade, substantially as and for the purpose specified. 3rd. The combination of the handle A, provided with notches or recesses, the parallel reciprocating bars d, the right angled portion e, the arm f, the tangs k, formed upon the arm g, and the right angled portion c, the cord E, and a rotating fan stem, and the elastic band F, substantially as and for the purpose specified. 4th. The combination of the handle A, the fan stem B, provided with the kerf b, a cord extended through the kerf and wrapped around the fan stem, and reciprocating bars, substantially as and for the purpose specified.

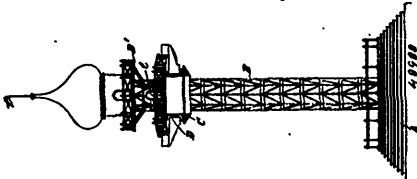
**No. 48,987. Cleaning Attachment for Dust Collectors.** (*Appareil de nettoyage pour aspirateurs de poussières.*)



Alexander Dobson, Beaverton, Ontario, Canada, 20th May, 1895; 6 years.

*Claim.*—1st. A cleaning attachment for dust collectors, consisting of a brush arranged to move automatically through each of the dust collecting tubes, and mechanism for moving the brush through the tubes, substantially as specified. 2nd. A cleaning attachment for dust collectors, consisting of a brush arranged to be moved through each of the dust collecting tubes during the revolution of the dust collecting cylinder, the driving shaft, a cam on the driving shaft, a rocking lever arranged to be moved by the cam, and a connection between the end of the rocking lever and the brush whereby the brush is raised and lowered during the movement of the said arm, substantially as specified. 3rd. In a dust collector, the combination of the dust collecting cylinder, consisting of a series of dust collecting tubes, a driving shaft, a cam mounted on the driving shaft, a rocking lever adapted to be operated by the revolution of the cam, a brush, cords connected to the brush and to the rocking lever, substantially as specified. 4th. In a dust collector, the combination of an intermittently revolving dust collecting cylinder, comprised of a series of dust collecting tubes, means for closing off the current of air from one of the tubes on each partial revolution of the cylinder, a cleaning brush adapted to be lowered or raised through the said tube, a driving shaft for the dust collector, a cam mounted on the driving shaft, a rocking lever adapted to be operated by the cam, cords connected to the rocking lever and to the brush whereby the brush may be raised during the return movement of the rocking lever, substantially as specified.

**No. 48,988. Round-about. (Tourniquet.)**



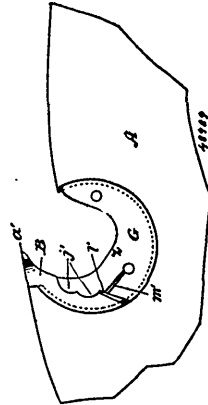
Hugo Engel, Berlin, Germany, 20th May, 1895; 6 years.

*Claim.*—1st. A round-about, consisting of a ring which is carried

up and down on a prospect tower, and which carries gondolas or cars travelling around the prospect tower, constructed and arranged, substantially as hereinbefore described. 2nd. A round-about, consisting of a ring C which is carried up and down on a prospect tower, without being rotated, and serves to bear another ring D carrying the gondolas or cars, and which may be rotated independent of the ring C constructed and arranged, substantially as hereinbefore described. 3rd. A round-about in which the ring C is provided with a platform e, on which are arranged the apparatus for driving and lowering this ring and for rotating the ring D constructed and arranged, substantially as hereinbefore described.

**No. 48,989. Removable Saw Teeth.**

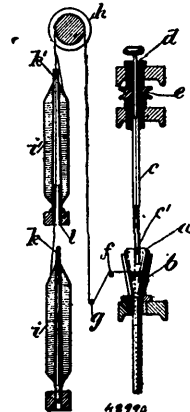
(*Dent de scie mobile.*)



Philias Bertrand, Saint John, New Brunswick, Canada, 20th May, 1895; 6 years.

*Claim.*—A removable saw tooth composed of two parts, namely, the bit, or cutting part B, having formed in it the two circular recesses e', and point f', and the key part G, having the two circular projections j', holes h' and i', shoulder l', and slit m', all substantially as herein shown and described.

**No. 48,990. Method of Doubling and Twisting Yarn.** (*Etc. (Méthode de retordre le fil.)*)

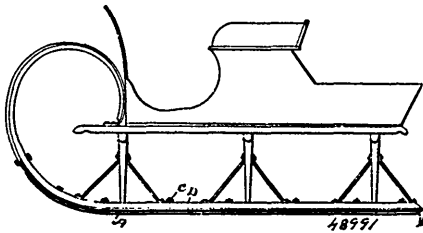


George Hilton Smith, Middleton, and Benjamin Cooper, Manchester, both of England, 20th May, 1895; 6 years.

*Claim.*—1st. The placing of a cop on a tube or hollow skewer for the purpose of passing a thread or threads from other cops, bobbins or hanks, through the tube or hollow skewer. 2nd. The placing of a cop on a revolving hollow or tubular spindle, and pass one or more threads through the spindles shown. 3rd. The subjecting of

the yarn prepared as before described, to the twisting process and covering strands as described and shown.

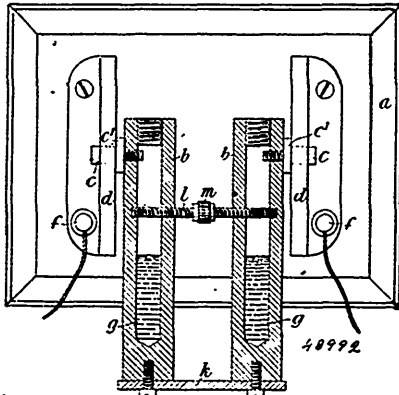
**No. 48,991. Sleigh Runner. (Patin de traineau.)**



William Du Bois, Stevensville, New York, U.S.A., 20th May, 1895; 6 years.

*Claim.*—A sleigh runner, comprising a shoe having a dove-tail head, and a keeper having a dove-tail recess, the shoe further having a longitudinal depression in its upper surface, and the keeper having key-hole slots communicating with the depression of the shoe the said slots permitting entrance of bolt heads at their larger ends and the depression of the shoe permitting a longitudinal movement of the keeper and shoe to engage the bolt heads, substantially as described.

**No. 48,992. Electric Switch. (Commutateur électrique.)**



Chaimsonovitz Prosper Eliason, London, England, 20th May, 1895; 6 years.

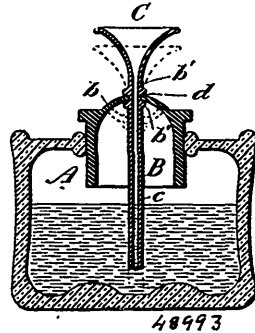
*Claim.*—1st. A circuit controlling switch comprising among its members, a receptacle composed of non-conducting material, supporting pivots therefor engaging said receptacle adjacent to one end thereof extending within the same and forming circuit terminals and a movable conducting body within said receptacle, substantially as described. 2nd. A circuit controlling switch comprising among its members, a receptacle composed of non-conducting material, supporting pivots therefor engaging said receptacle adjacent to one end thereof, extending within the same and provided with broad bearing surfaces outside of said receptacles, said pivots forming circuit terminals, spring supporting arms engaging said pivots and said broad bearing surfaces and a movable metallic body within said receptacle for making contact between said pivots, substantially as described. 3rd. A circuit controlling switch comprising among its members, a receptacle composed of non-conducting material provided with retaining notches, supporting pivots engaging said receptacle adjacent to one end extending within the same and forming circuit terminals, a movable conducting body within the receptacle for making circuit between the ends of said pivots, and a spring arm for engaging the retaining notches in said receptacle, for holding said receptacle in different positions, substantially as described.

**No. 48,993. Inkstand. (Encrier.)**

Charles Edwin Jewell, Toronto, Ontario, Canada, 20th May, 1895; 6 years.

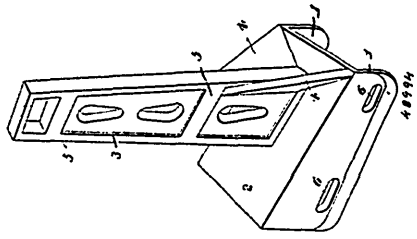
*Claim.* 1st. As a new article of manufacture, the attachment for

an ink bottle consisting of a hollow elastic stopper with a central yielding diaphragm, and the funnel provided with a dip-tube passing tightly through and sustained wholly by the diaphragm, whereby



the attachment is adapted to hold itself in place on and tightly seal the mouth of the bottle, and to feed ink to the funnel when the latter is depressed. 2nd. In an inkstand, the combination of the ink-containing body, the yielding stopper, provided with the flange *b'* to receive overflowing ink and the funnel and dip-tube, the latter extending through, and supported by, the stopper.

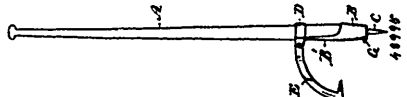
**No. 48,994. Wagon Bolster Stake. (Jalon pour coussinets de wagon.)**



Alexis Conard, North La Crosse, Wisconsin, U.S.A., 20th May, 1895; 6 years.

*Claim.*—In a wagon bolster stake, the combination of the standard 3 with the braces 4 4 and the bed plate 2 the sides or flanges 1 1 to fit against the sides of the bolster with the longitudinal slots 6 6 in said sides or flanges, substantially as described and shown.

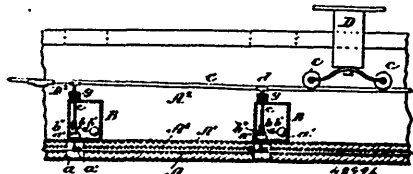
**No. 48,995. Cant-Hook. (Renard.)**



Thomas Pink, Pembroke, Ontario, Canada, 20th May, 1895; 6 years.

*Claim.*—A cant-hook having the socket B, provided with a tang B', and the ferrule or clasp B, carrying the dog covering the end of said tang when surrounding the handle A, as set forth.

**No. 48,996. Closed Conduit for Electric Railways. (Conduit pour chemin de fer électrique.)**

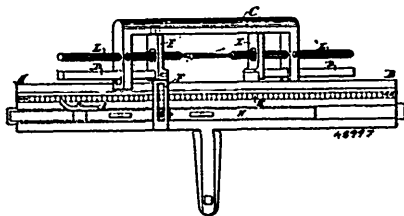


William Lawrence, New York, State of New York, U.S.A., 20th May, 1895; 6 years.

*Claim.*—1st. In a system of electric distribution, a main conductor,

a contact, a connection from the main conductor to the fixed part of said contact, a weighted lever carrying the movable part of the contact, a sectional working conductor, a rod connecting the moving conductor with the weighted lever, and a water-tight casing enclosing the contacts and lever. 3d. In an electric railway supply system, the combination of an insulated conductor main, branch conductors leading therefrom, contacts connected therewith, vertically movable rods, independently movable contact points to co-operate with the ones first mentioned, the said rods united at their upper ends with the service conductor, one rod being located near each end of every section, casings enclosing said contacts and located exterior to the conductor main, and communicating therewith only by the branch conductors, and provided with water-tight joints through the walls of which casings said rods pass, and means whereby the rods are elevated simultaneously with the movement of the contact points. 3rd. In an electric railway supply system, the combination of an insulated conductor main, branch conductors leading therefrom, contacts connected therewith, vertically movable rods, independently movable contact points to co-operate with the ones first mentioned, the said rods united at their upper ends with the service conductor, one rod being located near each end of every section, casings enclosing said contacts and located exterior to the conductor main, and communicating therewith, only by the branch conductors, and provided with water-tight joints, through the walls of which casings said rods pass, and means whereby the rods are elevated simultaneously with the movement of the contact points, a slotted conduit, and a motor car provided with collecting means. 4th. In an electric railway supply system, the combination of an insulated conductor main, branch conductors leading therefrom, contacts connected therewith, vertically movable rods, independently movable contact points to co-operate with the ones first mentioned, the said rods united at their upper ends with the service conductors and at their lower portions with levers connected with one set of said contacts, one rod being located near each end of each section, casings enclosing said contacts and located exterior to the conductor main and communicating therewith only by the branch conductors, and means whereby the rods are elevated simultaneously with the movement of the said contact points. 5th. In an electric railway supply system, the combination of an insulated conductor main, branch conductors leading therefrom, contacts connected therewith, vertically movable rods, independently movable contact points to co-operate with the ones first mentioned, the said rods united at their upper ends with the service conductors and at their lower portions with levers connected with one set of said contacts, one rod being located near each end of each section, casings enclosing said contacts and located exterior to the conductor main and communicating therewith only by the branch conductors, and means whereby the rods are elevated simultaneously with the movement of the said contact points, a slotted conduit and a motor car provided with collecting means.

No. 48,987. Saw Filer. (Machine à afeuter les scies.)



John L. McDougall and Daniel McMillan, both of Winnipeg, Manitoba, Canada, 21st May, 1885; 6 years.

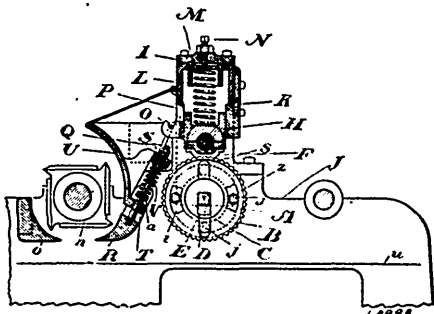
Claim.—1st. The combination of a sliding frame C, with file holds I, A, saw vise A, B, slides H, H, and movable ratchets K, K, as and for the purpose hereinafter set forth. 2nd. The combination with a sliding frame C, with file holds I, A, saw vise A, B, slides H, H, movable ratchets K, K, and sliding studs F, F, substantially as and for the purpose hereinafter set forth.

No. 48,988. Sectional Feed Roller and Pressure Bar for Planers. (Alimentateur de rouleau et barre de pression pour machines à raboter.)

MacGregor, Gourlay & Co., assignees of Thomas Cumming Robertson, and James McElroy, all of Galt, Ontario, Canada, 21st May, 1885; 6 years.

Claim.—1st. A feed roller comprising a series of sections capable of rotating freely on sleeves carried by a fixed shaft and adapted to move vertically thereon, substantially as and for the purpose specified. 2nd. A feed roller comprising a series of sections capable of rotating freely on sleeves carried by a fixed shaft and adapted to move vertically thereon, in combination with a pressure bar constructed in sections suitably supported and each connected with a corresponding section of the feed roller so as to move simultaneously

therewith, substantially as and for the purpose specified. 3rd. A feed roller comprising a series of sections capable of rotating freely on sleeves carried by a fixed shaft, the said sleeves being slotted to admit of their moving vertically on the said shaft, which is preferably fastened or angular in section so as to prevent the sleeves from rotating thereon, substantially as and for the purpose specified. 4th. In a feed roller, the combination of the following elements:—a series of feed roller sections having grooves formed in each

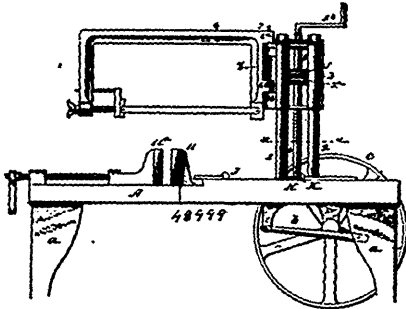


end thereof, a series of sleeves supporting said sections, a fixed shaft, on which the said sleeves are vertically movable, a series of rings located between the sections of the rollers, a pair of studs connected to one side of the ring diametrically opposite to one another, a pair of studs connected to the opposite side of the ring at points intermediate of the other pair, the said studs entering the grooves in the ends of the adjoining feed roller sections, and means for imparting motion to at least one section of the roller, substantially as and for the purposes specified. 5th. In a feed roller, the combination of the following elements: a series of roller sections having grooves formed in each end thereof, a series of sleeves supporting said sections, a fixed shaft on which the said sleeves are vertically movable, a series of rings located between the sections of the feed roller, a pair of studs connected to one side of the ring diametrically opposite to one another, a pair of studs connected to the opposite side of the ring at points intermediate of the other pair, the said studs entering the grooves in the ends of the adjoining feed roller sections, a disc journaled in the frame of the machine adjacent to an end section of the feed roller, a ring groove and stud connection between the disc and end section similar to that between the feed roller sections, and means for rotating the said disc substantially as and for the purpose specified. 6th. In a feed roller, the combination of the roller sections B, grooved at s, the slotted sleeves C, the fixed square shaft D, with the rounded end h, the bearing f, the shaft e, bored to receive the end h, of the shaft D, the sleeve e, keyed to the shaft e, the disc g, formed on or connected to the sleeve e, rings i, and studs j, fitting into the grooves in the roller sections and discs, substantially as and for the purpose specified. 7th. In a feed roller, the combination of the roller sections B, grooved at s, the slotted sleeves C, the fixed square shaft D, with the rounded ends h, the bearings f, the shafts e, bored to receive the ends h, of the shaft D, the sleeves e, keyed to the shafts e, the discs g, formed on or connected to the sleeves e, rings i, and studs j, fitting into the grooves in the roller sections and discs, and central supporting rod n, adjustably connected to the frame of the machine, substantially as and for the purpose specified. 8th. In a feed roller, the combination of the roller sections B, grooved at s, the slotted sleeves C, the fixed square shaft D, with the rounded ends h, the bearings f, the shafts e, bored to receive the ends h, of the shaft D, the sleeves e, keyed to the shafts e, the discs g, formed on or connected to the sleeves e, rings i, and studs j, fitting into the grooves in the roller sections and discs, adjustable central supporting rod n, and dividing web k, carried by the frame of the machine substantially as and for the purpose specified. 9th. In a feed roller, a series of roller sections having grooves formed in each end thereof, a series of sleeves supporting said sections, a fixed shaft on which the said sleeves are vertically movable, a series of rings located between the sections of the feed roller, a pair of studs connected to one side of the ring diametrically opposite to one another, a pair of studs connected to the opposite side of the ring at points intermediate of the other pair, the said studs entering the grooves in the ends of the adjoining roller sections in combination with spring pressure rollers suitably supported and located above each feed roller section, substantially as and for the purpose specified. 10th. In a feed roller, the combination of the roller sections B, grooved at s, the slotted sleeves C, the fixed square shaft D, with the rounded end h, the bearing f, the shaft e, bored to receive the end h, of the shaft D, the sleeve e, keyed to the shaft e, the discs g, formed on or connected to the sleeves e, rings i, and studs j, fitting into the grooves in the roller sections and discs, and suitably carried spring pressure rollers B, substantially as and for the purpose specified. 11th. A feed roller comprising a series of sections capable of rotating freely on sleeves carried by a

fixed shaft and adapted to move vertically thereon, in combination with suitably carried spring pressure rollers located above each section, a pressure bar constructed in sections suitably supported and normally held down by suitable springs, and pivoted links connecting each of the said pressure bar sections with the bearing of the spring pressure roller of the corresponding section, substantially as and for the purpose specified. 12th. In a planer, a pressure bar comprising a series of shoes or independent sections sliding on lugs formed on a stationary bar, in combination with adjustable springs suitably arranged to impart a downward pressure to the said shoes or sections, substantially as and for purpose specified. 13th. In a planer, a pressure bar comprising a series of shoes or independent sections sliding on lugs formed on a stationary bar and pressed downward by suitably arranged springs, in combination with links pivoted to the said sections, spring pressure rollers suitably carried in vertically movable bearings, and having hooks formed on the back of their bearings with which the said pivoted links engage, substantially as and for the purpose specified. 14th. In a feed roller, the combination of the roll sections B, grooved at s, the slotted sleeve C, the fixed square shaft D, with the rounded end h, the bearings f, the shaft e, bored to receive the end h, of the shaft D, the disc g, formed on or connected to the sleeve c, and grooved at s, rings i studs j, fitting into the grooves in the roller sections and disc pressure rollers F, bearings H, vertically movable, springs L, hooks O, links Q, pivoted to the sliding shoes or pressure bar sections B, lugs S and T, on the stationary bar U, rods V, collars a, springs b, and adjusting nuts on the rods V, substantially as and for the purpose specified.

**No. 48,999. Saw for Cutting Iron.**

(Scié pour le fer, etc.)



The Ayer Manufacturing Company, assignee of William Westley Holmes, both of Chicago, Illinois, U.S.A., 21st May, 1885; 6 years.

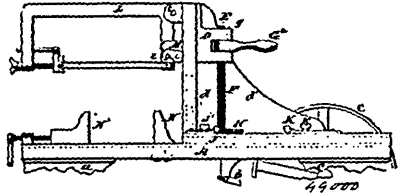
**Claim.**—1st. In a power driven shop-saw, the combination of a tubular carriage, vertical posts or ways thereon, and feed mechanism for actuating the carriage, substantially as and for the purposes specified. 2nd. In a power driven shop-saw, the combination of vertical posts or ways arranged in the plane of the saw, and a tubular saw carriage adapted to travel on said posts or ways, substantially as and for the purposes specified. 3rd. In a power driven shop-saw, the combination of a tubular carriage, posts or ways thereon, and a feed screw interposed between the posts or ways of the carriage, substantially as and for the purposes specified. 4th. In a power driven shop-saw, the combination, with a reciprocating slide of parallel posts or ways erected thereon and arranged in the line of motion of said slide, a tubular saw carriage, a feed screw interposed between said parallel ways or posts, and means on the slide support for actuating said feed screws, substantially as and for the purposes specified. 5th. In a power driven shop-saw, the combination of a saw carriage a saw frame, and a spring hinge connection between said parts, substantially as and for the purposes specified. 6th. In a power driven saw, the combination of a saw carriage and a saw frame hinged thereon, said parts having the one a notch and the other a knife edge arranged to engage in said notch, substantially as and for the purposes specified. 7th. In a power driven shop-saw, the combination, with a saw carriage and a saw frame having interlocking knuckles, one of said knuckles having a knife edge projection and the other a notch for the reception thereof, of a spring interposed between the knuckles, and a suitable pin or pintle, substantially as and for the purposes specified.

**No. 49,000. Saw for Cutting Iron. (Scié pour le fer, etc.)**

The Ayer Manufacturing Company, assignee of William Westley Holmes, both of Chicago, Illinois, U.S.A., 21st May, 1885; 6 years.

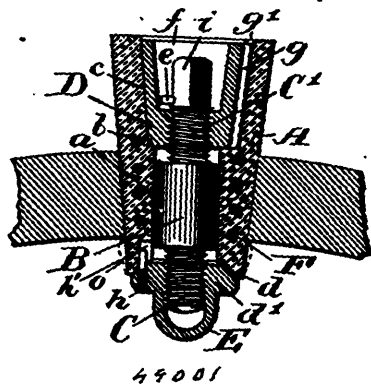
**Claim.**—1st. The combination with a hack-saw, of a vertically

movable carriage therefor, horizontally reciprocating ways for said carriage, and an automatic feed mechanism for actuating the carriage, substantially as and for the purposes specified. 2nd. The combination with horizontally reciprocating carriage guides or ways, of a vertically movable saw carriage arranged thereon, an automatic feed mechanism for said carriage, and a horizontally arranged hack-saw secured to and projecting from said carriage, substantially as



and for the purposes specified. 3rd. The combination with a horizontally arranged hack-saw and its carriage, of alternately reverse acting feed mechanism for lifting the carriage at or near the close of the cutting stroke, substantially as and for the purposes specified. 4th. In a power hack-saw, the combination with a suitable base, of a reciprocating slide, carriage-ways erected thereon, a carriage, a feed screw for the carriage, and mechanism for alternately reversing the feed screw, substantially as and for the purposes specified. 5th. In a power hack-saw, the combination with a suitable base, of a reciprocating slide, a saw carriage and feed screw mounted on the slide, a ratchet-wheel for the feed screw, and spring pawls or dogs arranged on the base or slide support and adapted to alternately reverse the feed screw, substantially as and for the purposes specified. 6th. In a power hack-saw, the combination with a suitable base or slide support, of a reciprocating slide mounted thereon, a saw carriage and feed screw mounted on the slide, a ratchet-wheel for actuating the feed screw, and adjustable dogs or pawls for engaging the ratchet-wheel at the opposite ends of the travel of the reciprocating slide, substantially as and for the purposes specified. 7th. In a power hack-saw, the combination with a saw carriage and its feed mechanism, of adjustable mechanism for reversing the feed and changing the length of the working stroke of the saw, and an adjustable vise for holding the work, substantially as and for the purposes specified. 8th. In a power hack-saw, the combination with a power driven saw carriage, of a saw frame pivoted thereto, and means for locking the saw frame to the carriage, substantially as and for the purposes specified. 9th. In power driving mechanism for shop-saws, the combination of a reciprocating slide, vertical ways arranged thereon, a saw carriage mounted on said ways, a feed screw mounted on the slide and provided with a ratchet-wheel, and dogs or pawls adjustable mounted in the path of the reciprocating slide, and arranged to engage the ratchet-wheel of the feed screw at or near the opposite ends of the travel of the reciprocating slide, substantially as and for the purposes specified.

**No. 49,001. Expandible Bung. (Bondon expansible.)**



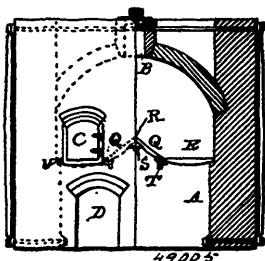
Louis Wagner and John Marr, both of Baltimore, Maryland, U. S. A., 21st May, 1893; 6 years.

**Claim.**—1st. A bung comprising a hollow tapered elastic plug, having a conical seat at one end and an internal shoulder near the other end, a stem extending through said plug and having oppositely threaded end portions, a nut on one of said end portions and fitting against the conical seat, and a nut on the other of said end portions



stationary finger having one arm adapted to operate such movable finger, and its other arm connected with one arm of a second bell-crank lever fulcrumed on such main rod near the handle thereof, and having its other arm notched, and a counter-balanced swinging detent having one end weighted and its other arm adapted to engage with the notches in the arm of said bell-crank lever, for the purpose set forth.

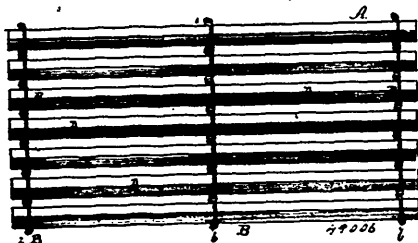
**No. 49,005. Furnace. (Fournaité.)**



Chauncey E. Holaday, assignee of John W. Holaday both of Ridgeway, Pennsylvania, U.S.A., 21st May, 1885; 6 years.

*Claim.*—A rectangular grate, substantially as described, comprising a central crowning portion raised above the level of the outer portions of the grate.

**No. 49,006. Door Mat. (Paillasson.)**



Allen G. Ingalls and Charles Leander Higgins both of Montreal, Quebec, Canada, 21st May, 1885; 6 years.

*Claim.*—1st. In matting or a door mat, the combination with its square or triangular shaped sticks of wood A, of the twisted or woven wire lashings B, and the end fastenings C, all arranged as set forth. 2nd. In matting or a door mat, the wooden sticks A, having the saw cuts  $a^1$ , combined with the lashings B, in such manner as to cause the apex  $a^1$ , of the members A, to lie uppermost, substantially as set forth. 3rd. As an article of manufacture, a door mat made of square or three cornered sticks, so lashed together by double strand lashings of wire or rope at suitable intervals, that a corner of the sticks will be at the top, substantially as set forth. 4th. As an advertising medium a mat made of square or three cornered sticks of wood so lashed together by strand lashings of wire or the like material placed at suitable intervals, that a corner of the sticks will be at the top, the contiguous sides of the sticks bearing an advertisement, each stick bearing parts of the letters forming the advertisement, so that the advertising matter may be readily read by a person approaching the mat when near enough to cause the surface of the sticks to present an unbroken plane thus rendering the mat susceptible of being reversed to present the under-side advertisement at the top at will, substantially as described.

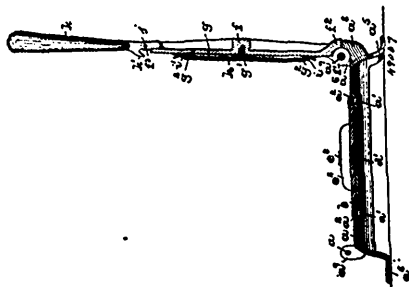
**No. 49,007. Machine for Embossing Photographs.**

(Machine à loquer les photographies.)

Andrew B. Breckner, and Edward L. Decker, assignees of Clotonia Joaquin Dorticus, all of Newton, New Jersey, U.S.A., 21st May, 1885; 6 years.

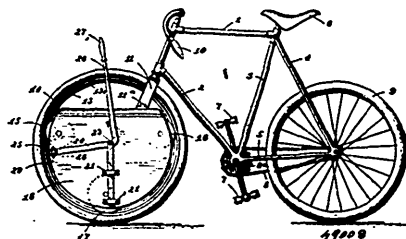
*Claim.*—1st. A machine for mounting and embossing photographic prints, consisting essentially, of a bed-plate, a female die on said bed-plate, a pressure-bar hinged to said bed-plate, a male die on said pressure-bar, and means for causing the locked engagement of said pressure-bar with the bed-plate, consisting of a lever pivoted to the pressure-bar, provided with a holding jaw  $K^1$ , at or near the fulcrum point of the pressure-bar, and a holding pin on the bed-plate with which said jaw is adapted to be engaged, substantially as and for the purposes set forth. 2nd. A machine for

mounting and embossing photographic prints, consisting essentially, of a bed-plate, a die on said bed-plate, a pressure-bar provided with a die and hinged to said bed-plate, stops or projections on said bed-plate and said pressure-bar, to retain the same in its raised position, and means for causing the locked engagement of said pressure-bar



with the bed-plate, consisting of a lever pivotally connected with the pressure-bar, provided with a holding jaw  $K^1$ , and a holding pin on the bed-plate, substantially as and for the purposes set forth. 3rd. A machine for mounting or embossing photographic prints, comprising therein, a bed-plate, having a recessed portion  $a^1$ , a pressure-bar pivotally connected with said bed-plate, a die on said pressure-bar, and a die in said recessed portion  $a^1$ , said die having centrally arranged bearings, whereby said die is adapted to oscillate in said recessed portion, to bring the faces of the dies in perfect contact when the pressure-bar is lowered, substantially as and for the purposes set forth.

**No. 49,008 Bicycle with Package Holding Attachment. (Attache de paquet pour bicyclet.)**



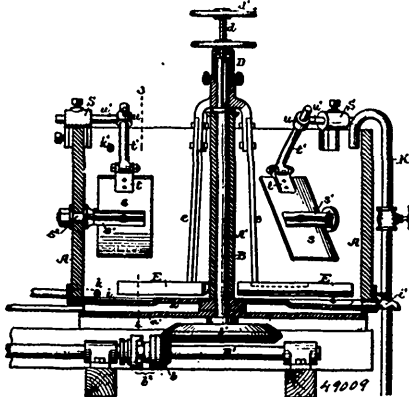
Lawson Adams, Alexander Gleason and William Peter Smith, all of Buffalo, New York, U.S.A., 1885; 6 years.

*Claim.*—1st. The combination with a bicycle, of a package holder secured to the bicycle fork and mounted on grooved rollers adapted to run on a substantially V-shaped track extending entirely around the inner side of the rim of the wheel, substantially as described. 2nd. The combination with a bicycle, of a package holder having its top rigidly secured to the bicycle fork and provided with a series of grooved rollers which run and are supported on an inner endless track forming a part of the hollow rim of the wheel, and means for adjusting a portion of the series of said rollers, substantially as and for the purposes described. 3rd. The combination with a bicycle, of a package holder secured to the cycle frame, and mounted on rollers adapted to track on the inner side of the wheel rim. 4th. The combination with a bicycle of a package holder suitably secured to the frame portion thereof, said package holder being adapted to take the place of the spokes and hub of one of the bicycle wheels, substantially as described. 5th. A package holder provided with a cover and means for locking it, and a series of grooved rollers mounted in suitable boxes at the bottom and sides thereof, in combination with a cycle wheel rim having an inner rim track extending around the inner side of the same upon which the grooved wheels are mounted and support the package holder within the rim, and means for securing the package holder to a cycle fork, substantially as described. 6th. The combination with a bicycle, of a package holder secured to the bicycle fork, a series of grooved rollers mounted on said package holder, a wheel rim having an inner endless track upon which the grooved rollers are mounted and support the package holder, vertically movable feet on the package holder for keeping the bicycle in an upright position when at rest, and means substantially as described for operating them. 7th. The combination with a bicycle, of a hollow wheel at the front of the same, an endless track extending around the inner side of the wheel rim, a package holder secured to the bicycle fork and mounted on grooved rollers

adapted to run on the endless track within said rim, a shaft extending transversely through the package holder, a forked brake rigidly secured to said shaft adapted to clutch the said endless track, two substantially horizontal arms rigidly secured to said shaft, two vertically movable feet having their upper ends pivoted to the free ends of the said arms, and an upright arm provided with a handle adapted to be grasped by the hand, whereby when said handle is moved toward the operator, the brake is brought into action and the feet are lowered down at the same time, for the purposes described.

**No. 49,009. Amalgam Separator.**

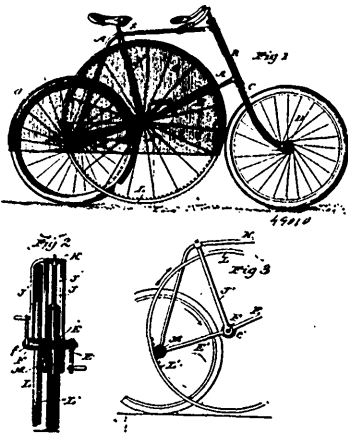
(*Séparateur amalgame.*)



Arthur Kitson, Philadelphia, Pennsylvania, and Alexander Keith, Toronto, Ontario, Canada, assignees of Thomas Walker and John Forsyth Carter, both of Philadelphia, Pennsylvania, U.S.A., 21st May, 1895; 6 years.

**Claim.**—1st. The mode herein described of cleaning and collecting amalgam said mode consisting in immersing the amalgam in water, agitating the latter so as to separate and carry off the light impurities from the amalgam, and directing the clean amalgam, without any grinding or triturating action thereon, into a receptacle, substantially as set forth. 2nd. The combination of the tank, extended pockets or depressions in the bottom of said tank, stationary inclined blades mounted on the tank above the pockets, a central shaft, arms thereon, blades carried by said arms, said blades having inclined bases whereby the material not only receives a rotary motion in the tank, but is also directed down in close proximity to the pockets by the blades of the tank and into the pockets by the rotating blades, substantially as described. 3rd. The combination in a separator, of the tank, depressions or pockets in said tank containing amalgam, movable blades in the tank by which motion is given to the material under treatment, with adjustable blades secured to the body of the tank to direct the material towards the pockets, substantially as described. 4th. The combination of the stationary tank, amalgam collectors in the bottom of the tank, movable blades, mechanism for moving said blades, with blades pivoted to the side of the tank to direct the material down towards the collectors, a rod attached to the upper end of each blade, and adjustably secured to the tank so that the blades can be set at different angles, substantially as described. 5th. The combination of the pan formed of two plates providing a steam space for heating the pan, side walls forming with the pan, a tank, extended depressions or pockets in the said pan, directly under the blades, a valve passages communicating with one or more of said depressions, whereby the amalgam is carried away from the apparatus, water inlet and outlet circulating blades, a central shaft to which said blades are secured, mechanism for driving said shaft, and inclined stationary blades secured to the tank, substantially as described. 6th. The combination of the stationary tank, amalgam collectors in the bottom of the tank, a vertical shaft, blades carried thereby, an arm *a*, a blade *b* thereon, a rod *c* pivoted to the upper portion of the blade, a rod *d*, having a head *e*, through which the rod *c* passes, a pivot block *S* for the rod *d*, with set screws for retaining the rods *a*, and *c* in place, substantially as specified. 7th. The combination of the stationary tank, amalgam collectors in the bottom of the tank, a vertical shaft, blades carried thereby, an arm *a*, a blade *b* thereon, said arm extending through the tank and provided with a clamping nut, a rod *c* pivoted to the upper portion of the blade, a rod *d*, having a head *e*, through which the rod *c* passes, a pivot block *S* for the rod *d*, with set screws for retaining the rods *a*, and *c* in place, substantially as specified.

**No. 49,010. Bicycle. (Bicycle.)**

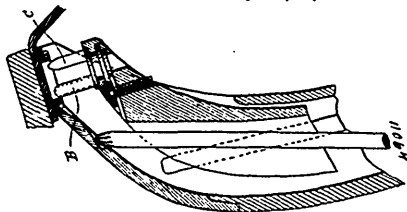


John McLeod Murphy and William J. Dixon, both of Danbury, Connecticut, U.S.A., 21st May, 1895; 6 years.

**Claim.**—1st. As an improvement in bicycles, the combination with the crank axle and the rear drive wheel having a cog gear, of a toothed wheel fixedly held on the crank axle held in engagement with the said cog gear to rotate it in a forward direction, substantially as shown and described. 2nd. As an improvement in bicycles, the combination with the main frame and the main drive wheel having a toothed wheel on the axle at one side and the crank axle having an extension at the corresponding side of a wheel fixedly held on such extended portion of the shaft having an internal toothed rim held in mesh with the toothed wheel on the rear axle, all arranged substantially as shown for the purpose described. 3rd. An improved bicycle comprising the front and rear wheels, the axle of the rear wheel having a cog-wheel at one side, the main frame of the rear wheel bearing at a point above the said cog-wheel the crank axle journaled therein having at extension at the side in line with the aforesaid cog-wheel, and a single drive gear carried on such extension held to engage the said cog-wheel and rotates the rear wheel in a forward direction, as hereinafter described. 4th. As an improvement in bicycles with the rear drive wheel and the crank axle, of a single gear-wheel having the said axle as its axis and rotated thereby, arranged to connect directly with the axle of the rear drive wheel and rotate it in a direction similar to its own rotation, substantially as shown and for the purpose described. 5th. As an improvement in bicycles the combination with the main frame *A*, the front and rear wheels, the rear wheel having a toothed axle member *M*, and the frame section *J, J'*, one of which *J* projects to one side of the main frame of the crank axle *F* having an extension *f*, journaled in the lower end of the frame section *J*, said section *J, J'*, being also joined with the lower bar of the main frame and the power wheel *L*, journaled on the extension *f*, of the crank axle and having an internal cog rim *I* to mesh with the member *M*, all arranged substantially as shown and for the purpose described.

**No. 49,011. Wire Sewing Machine.**

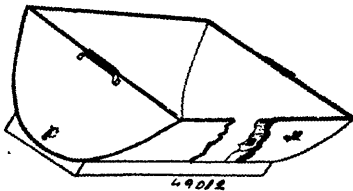
(*Machine à coudre le fil de fer.*)



Michael Colwell Mullarky, Montreal, Quebec, Canada, 21st May, 1895; 6 years.

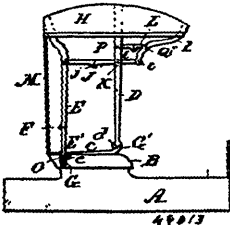
**Claim.**—In a wire sewing machine an awl placed on the same head as the needle, substantially as described and for the purposes set forth.



**No. 49,012. Kneading Pan. (Casserole à pétrir.)**

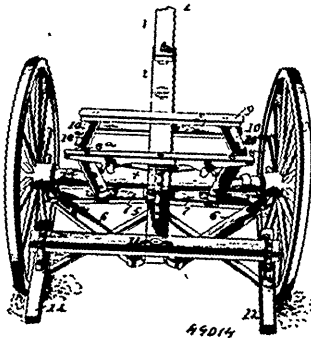
Joseph W. Jack, Truro, Nova Scotia, Canada, 22nd May, 1895; 6 years.

*Claim.*—As an article of manufacture a bread-pan constructed of wood, of the form shown and lined with tin, as and for the purpose hereinbefore set forth.

**No. 49,013. Carriage Top. (Couverture de voiture.)**

Emil Alexander Sommerfruechte, St. Louis, Missouri, U.S.A., 22nd May, 1895; 6 years.

*Claim.*—1st. The combination, with a collapsible top, of a pair of substantially vertical side arms on each side, each arm pivoted at its lower end and adapted to turn towards its mate, and one arm of each pair having a hinge joint breaking inward, and a horizontal brace for each pair near the top to press them apart and put said top under tension. 2nd. In a carriage top, the combination, with the main bow and a front bow having short side arms, of a jointed brace pivoted to said main bow, the forward portion constituting a lever support for said front bow pivotally secured thereto, and a secondary brace for said front bow. 3rd. In a carriage top, the combination, with a pair of main bows having substantially vertical side arms pivotally supported at their lower ends, one bow having hinge joints in the side arms, and a front bow with short arms, of a jointed lever brace on each side of the top pivotally secured to the main bow arms and extending forward to support the corresponding end of the front bow arm, and a secondary jointed brace for said front bow, adapted to be broken at the joint when the said lever brace is broken. 4th. In a carriage top, the combination with the seat rail having opposing stops, of the main bows and their side arms D and E, E', having the joint F, the brace J fulcrumed at K, the front bow I, the secondary brace L, and the top proper H, all substantially as shown and described.

**No. 49,014. Running Gear. (Train de voiture.)**

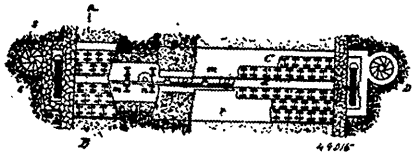
George Harris, Belmont, New York, U.S.A., 22nd May, 1895; 6 years.

*Claim.*—1st. The combination of a front axle, a reach pivotally

connected to the axle and extending in advance of the same, a pole hingedly connected with the front end of the reach, the laterally disposed levers 7, fulcrumed at their inner ends on the reach, and extending outward therefrom, the converging bars 8, extending from the outer ends of the levers 7 to the pole, and movably connected with them, and connections between the levers 7, and the front axle, said connections being attached to the levers at points intermediate of the ends thereof, substantially as described. 2nd. The combination of a front axle, a reach pivotally connected to the axle and extending in advance of the same, a pole hingedly connected with the front end of the reach, the laterally disposed levers 7, located in advance of the axle and fulcrumed at their inner ends on the reach and extending outward therefrom, the converging bars extending from the outer ends of the levers 7 to the pole, the longitudinally disposed levers fulcrumed intermediate of their ends on the axle, and having their front ends pivotally connected to the levers 7, intermediate of the ends of the latter, the transverse bars 9, located in rear of the axle and extending across the reach, and the link bars 10 connected to the ends of the transverse bars, and to the rear ends of the longitudinally disposed levers, substantially as described.

**No. 49,015. Automatic Water Power for Tunnels.**

(Pouvoir d'eau automatique pour tunnels.)

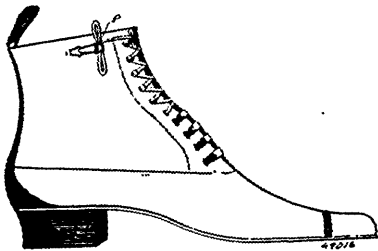


Georg Guttenbrunner, Ticio, Böhmen, Austria-Hungary, 22nd May, 1895; 6 years.

*Claim.*—1st. A water-way having a vertically movable gate or weir therein, mechanism arranged to lower said gate, and a float actuated by the change of the level of the water and arranged to start and stop the gate-actuating mechanism, substantially as described. 2nd. A water-way having a vertically movable gate extending transversely of the same, a transverse tunnel underneath the water-way, means for raising and lowering the gate within said tunnel, and a float actuated by the water level and arranged to start and stop the gate mechanism, substantially as described. 3rd. The combination with a water-way having a vertically adjustable gate, a transverse tunnel beneath the water-way, spindles within the tunnel arranged to carry the gate, a shaft arranged to raise and lower the spindles, a locking device for the shaft, and a float arranged to operate said locking device, substantially as described. 4th. A water-way having a transverse tunnel beneath the same, plates forming a slot in the upper face of the tunnel, a gate vertically movable within this slot, grooves within the plates forming the slot, and packing within these grooves, substantially as described. 5th. A water-way having a transverse tunnel beneath the same, plates forming a slot in the upper face of the tunnel, a gate vertically movable within this slot, and friction balls or rollers in the slot plates, substantially as described. 6th. A water-way having a vertically movable gate, and a hinged valve arranged to close the slot in which the gate moves, substantially as described.

**No. 49,016. Boot Lace Clamp.**

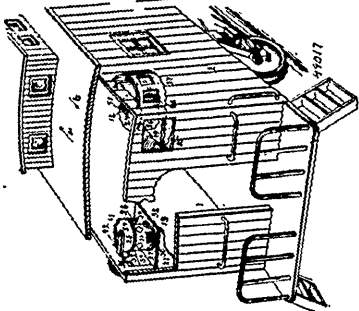
(Agrafe pour lacets de chaussures.)



Edward Johnson, Montreal, Quebec, Canada, 22nd May, 1895; 6 years.

*Claim.*—A spring clamp for securing the ends of boots or shoes laces made in one piece and bent over on itself at B, and having small projections E for attaching it to the boots or shoes, substantially as described and for the purposes set forth.

**No. 49,017. Car Signal. (Signal pour chars.)**

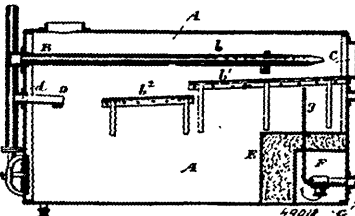


Frank Nicholson, Oakfield, New York, U.S.A., 22nd May, 1885; 6 years.

*Claim.*—1st. A flash signal for railway cars, and comprising the combination of a vertical revolvable shaft, an outwardly and downwardly extending shield connected thereto and revolving therewith, a lantern arranged within the path of the shield, a bull's-eye frame having two or more lenses therein and pivoted within the path of the shield and capable of moving in a limited circular path, and an arm adapted to be engaged by the shield and pivoted to swing in a circle smaller than that of the shield and having a connection with the bull's-eye frame, whereby the said frame upon engagement with the shield, is made to move so as to place one of its lenses in position to show, and when engaged by the shield when moving in an opposite direction, to place a second lens in position to show, substantially as described. 2nd. A flash signal for railway cars, and consisting of a shaft connected with the car-axle and adapted to revolve in opposite directions according to the direction in which the car is moving, a screen on the shaft and revolving therewith, a lantern located adjacent to the shaft, and a bull's-eye frame having two or more lenses therein and capable of being moved to display either of said lenses, the said movements being effected by engagement with the screen of the shaft, whereby the bull's-eye frame is moved to display one lens when the screen is moving in one direction and to display a different lens when the screen is moving in a second direction, substantially as described. 3rd. A flash signal for railway cars, and consisting of a shaft connected to the car-axle and adapted to revolve in opposite directions according to the direction in which the car is moving, a light-shield connected to and revolving with the shaft, a lantern located within the path of the shield so that its light may be cut off thereby, and a bull's-eye frame located adjacent to the lantern and having two or more lenses therein, the frame being capable of being moved to display either of the lenses, and adapted to be engaged by the light-shield and to be caused to show one lens when the shield is moving in one direction and a different lens when the shield is moving in a second direction, substantially as described. 4th. A signal light for railway cars, and comprising the combination of a continuously revolving friction disc, a revolvable and vertically movable shaft, a friction disc fixed to the shaft above the first disc and engaging therewith, a spring co-operating with the shaft and giving it a tendency upward, a set-screw whereby the tendency of the spring is overcome and the gears made to engage a lantern, and a shield on the shaft and operating to move around the lantern, the shaft being capable upon the removal of the set-screw, of raising so as to disengage the friction discs, whereby the movements of the shield are stopped, substantially as described.

**No. 49,018. Feed Water Heater for Steam Boilers.**

(Réchauffeur d'eau d'alimentation pour chaudières à vapeur.)



Robert Lowe, Washington, Pennsylvania, U.S.A., 22nd May, 1885; 6 years.

*Claim.*—The boiler A having the water and steam inlets B, C,

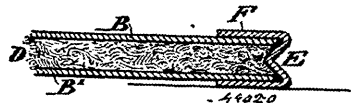
opposite to each other and, between them, the side-perforated sprayer b, the subjacent plates b', b'', in the same vertical plane but one below and in advance of the other, and the plate D, the said plates b', b'' being at or about on a level with the escape-hole d of the boiler, whereby the feed-water is first mixed with steam and then carried down the plates b', b'', to the plate D over which the floating impurities will pass out through the escape hole e, in the manner described.

**No. 49,019. Process for the Recovery of Gold and Silver from Solutions. (Procédé pour le recouvrement de l'or et argent des solutions.)**

Edward Dwight Kendall, Swarzen, New Jersey, U.S.A., 22nd May, 1885; 6 years.

*Claim.*—1st. In the recovery of gold and silver from cyanide solutions, the process of subjecting said solutions to the action of a pulverized amalgam, composed of mercury and zinc, as described. 2nd. In the recovery of gold and silver from solutions, the process of transferring the gold and silver from said solutions to a mercurial amalgam, by first subjecting them to the action of a pulverized or granulated amalgam composed of mercury and an appropriate metallic re-agent and then treating the valuable precipitate to the granulated carbon in contact therewith in a bath of dilute acid, substantially as described. 3rd. The process of the recovery of gold and silver from solutions which consists of the following steps, (1) the subjecting of the ore containing the precious metals to the action of a solvent, thus obtaining an aqueous solution of the solvent and the minerals contained in the ore, (2) subjecting the said solution to the electro-chemical action of a mercurial amalgam, (3) subjecting the valuable precipitate secured by the preceding process to the action of dilute acid in the presence of carbon, (4) the recovery of the valuable metal from the result of the preceding process, substantially as described.

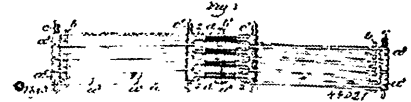
**No. 49,020. Carpet Lining. (Garniture de tapis.)**



Charles Carroll Stewart, Philadelphia, Pennsylvania, U.S.A., 22nd May, 1885; 6 years.

*Claim.*—1st. A carpet lining having an infold in its side, producing a spring edge, substantially as described. 2nd. A carpet lining formed of a layer of paper, a ply of felt, or an intermediate filling of batting or wadding, and provided with an infold side, producing a spring edge, substantially as described.

**No. 49,021. Pillow or Cushion. (Oreiller ou coussin.)**

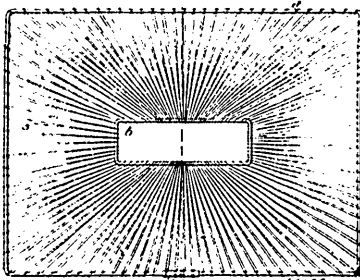


William Vogler, Somerville, Massachusetts, U.S.A., 22nd May, 1885; 6 years.

*Claim.*—1st. A seat or cushion composed of a series of three-armed springs, each containing between its ends two spring coils, a supporting frame for said three-armed springs comprising rigid rods and coiled springs which are extended through said spring coils, a foot-holder to which the ends of one of the arms of said springs are connected and connecting means between the arms of said springs, which arms constitute the top of the seat or cushion, substantially as described. 2nd. A seat or cushion composed of a series of three-armed springs, each containing in its bends between its ends spring coils, and a supporting frame for said three-armed springs comprising rigid rods and coiled springs which are extended through said spring coils, substantially as described. 3rd. A seat or cushion composed of a series of three-armed springs, each containing between its ends spring coils, and its free ends terminating in eyes, and a supporting frame for said three-armed springs comprising rigid rods and coiled springs upon which said three-armed springs are strung by passing said rods and coiled springs through the spring coils and eyes, substantially as shown and described. 4th. A seat or cushion composed of a series of three-armed springs, each containing between its ends spring coils, and its free ends terminating in eyes, a supporting frame for said three-armed springs comprising rigid rods and coiled springs upon which said three-armed springs are strung by passing said rods and coiled springs through the spring coils and eyes, and connecting spring-links for the upper free ends of said three-armed springs, substantially as described. 5th. A seat or cushion composed of a supporting frame, comprising rods or bars, one or more of which are composed of coiled springs, a suitable foot-holder composed of a rigid rod, and a series of three-armed springs provided with coils and eyes by which they are strung upon

said supporting frame and foot holder, the coiled springs of said supporting frame engaging the uppermost coils and eyes of the transverse springs, substantially as described.

**No. 49,022. Pillow or Cushion. (Oreiller ou coussin.)**

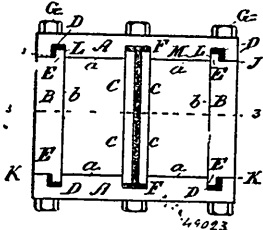


William Vogler, Somerville, Massachusetts, U.S.A., 22nd May, 1895; 6 years.

**Claim.**—1st. A pillow or cushion, composed of three frames or sections, one of which is expandible, and a series of spring wires connecting the same together, the expandible frame expanding under the action of the weight upon the pillow or cushion, substantially as described. 2nd. A pillow or cushion, composed of three frames or sections one of which is expandible, and located in different horizontal planes, and a series of spring wires each connected to all of the frames, the expandible frame expanding under the action of the weight upon the pillow or cushion, substantially as described.

**No. 49,023. Mould for Brick Presses.**

(Moule pour presses à briques.)



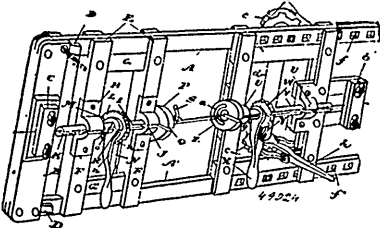
Peter L. Simpson, Chicago, Illinois, U.S.A., 22nd May, 1895; 6 years.

**Claim.**—1st. In a sectional mould for brick presses, the combination with the side-plates whose inner faces are in the same plane throughout the length of said plates, and having transverse grooves therein near the ends thereof, of the end-plates abutting directly against the inner faces of the side-plates, and tongues on said end-plates entering the grooves in the side-plates, substantially as described. 2nd. In a sectional mould for brick presses, the combination with the side-plates whose inner faces are in the same plane throughout the length of said plates and have transverse grooves therein near each end thereof, and also at one or more points intermediate of said end-grooves, of end-plates abutting directly against the inner faces of the side-plates and provided with tongues entering the end-grooves in the side-plates, and a pair of division-plates each of whose ends project into the intermediate grooves in the side-plates, substantially as set forth. 3rd. In a sectional mould for brick presses, the combination of side and end plates, the inner faces of said side-plates being in the same plane throughout the length of said plates and having transverse grooves therein near the ends thereof to receive tongues on the ends of the end-plates, and the end-plates being provided with shoulders against which these side-plates abut, perforations extending longitudinally through said end-plates and the side-plates, bolts passing through said perforations and of less diameter than the perforations in the end-plates and also binding said plates together, and a filling of sulphur or equivalent material for said perforations, substantially as set forth. 4th. In a sectional mould for brick-presses, the combination with the side-plates whose inner faces are in the same plane throughout the length of said plates, and have transverse grooves therein near the ends thereof and also at one or more points intermediate of said end-grooves, end-plates abutting directly against the inner faces of the side-plates and provided with tongues entering the end-grooves in the side-plates, a pair of division-plates whose ends project into and loosely fit within

each of the intermediate grooves in the side-plates, perforations extending through the side-plates and longitudinally through the end and division-plates, bolts of less diameter than said longitudinal perforations and grooves and passing through the same and also binding the plates together, and a filling of sulphur or equivalent material for said perforations and grooves and also for the transverse grooves in the side plates, substantially as set forth. 5th. A sectional brick-mould, comprising a plurality of separable external walls engageably tongued and grooved at their contiguous end-ports, the grooves being wider than the tongues, openings formed longitudinally through certain of the walls and also communicating with the grooves when the walls are in proper relative position, retaining-bolts of less diameter than the longitudinal openings and extending removably through the same, and continuous masses of expandible filling within the grooves and extending from the latter into the longitudinal openings, substantially as set forth. 6th. A sectional brick-mould, comprising a plurality of separable external walls engageably tongued and grooved at their continuous end-ports, the grooves being wider than the tongues, and also having grooves at one or more points intermediate of their ends, a pair of intermediate partition-walls having an intervening space communicating with the intermediate grooves, openings formed longitudinally through the partition-walls and also through certain of the external walls and communicating respectively with the intermediate and end grooves, retaining-bolts of less diameter than said openings and extending through the same, and continuous masses of expandible filling within the grooves and space and longitudinal openings, substantially as set forth.

**No. 49,024. Wire Stretching and Splicing Machine.**

(Machine à étirer et épaisser le fil de fer.)

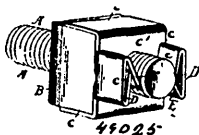


George Wood Boxburgh, St. Mary's, Ontario, Canada, 22nd May, 1895; 6 years.

**Claim.**—1st. A wire stretching and splicing machine consisting of a bed frame, a movable carriage mounted on the bed frame, means for holding the wire strands and means for moving the carriage to stretch the wire, substantially as specified. 2nd. A wire stretching and splicing machine consisting of a bed frame, means connected to the bed frame for holding one of the wire strands, a splicing carriage carried by the bed frame provided with means for receiving the wire strand, a movable carriage mounted on the bed frame and adapted to receive and firmly hold the other wire strand, and means for operating the movable carriage to stretch the wire strands, substantially as described. 3rd. In a wire stretching and splicing machine, the combination with a bed frame of a movable carriage mounted on the bed frame, a clamp connected to the movable carriage to hold one of the wire strands, a spindle slidably journaled in bearings mounted on the movable carriage, a splicing wheel connected to the spindle, means for causing the revolution of the splicing wheel and spindle, and means for moving the movable carriage on the bed frame, substantially as specified. 4th. In a wire stretching and splicing machine, the combination with the bed face of a clamp connected to the bed frame, adapted to hold one of the wire strands, a carriage movably mounted on the bed frame, slotted bearings mounted on the movable carriage, a grooved spindle journaled in the slotted bearings, a splicing wheel mounted on the end of the said spindle having a slot in line with and forming a continuation of the groove in the spindle, a holding attachment connected to the spindle to the splicing wheel, and means for revolving the spindle and splicing wheel, substantially as specified. 5th. In a wire stretching and splicing machine, the combination with the bed frame of a clamp connected to the bed frame, adapted to hold one of the wire strands, a carriage movably mounted on the bed frame, slotted bearings mounted on the movable carriage, a grooved spindle journaled in the slotted bearings, a splicing wheel mounted on the end of the said spindle having a slot in line with and forming a continuation of the groove in the spindle, a holding attachment connected to the spindle to the splicing wheel, means for revolving the spindle and splicing wheel, a movable carriage mounted on the bed frame, slotted bearings mounted on the movable carriage, a grooved spindle journaled in the bearings, a splicing wheel mounted on the spindle, having a slot extending from its centre to its periphery in line with and forming a continuation of the groove in the spindle, a holding attachment connected to the splicing wheel, means for causing the revolution of

the spindle and splicing wheel, a clamp connected to the movable carriage to receive and firmly hold one of the wire strands, and means for moving the movable carriage on the bed frame, substantially as specified.

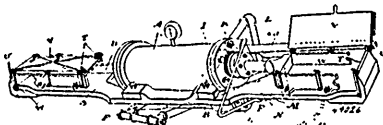
**No. 49,025. Nut-Lock. (Clé à écrou.)**



Robert E. McConley, Whitcomb, Wisconsin, U.S.A., 22nd May, 1895; 6 years.

*Claim.*—In a nut-lock, a perforated plate adapted to stride a threaded bolt, the inwardly turned flanges for embracing the sides of the nut, the upturned outwardly extending side flanges projecting from the face of the perforated plate-portion, inclined arms or pawls extending inwardly from and formed integrally with the outwardly extending flanges, and the springs also formed integrally with the outwardly extending flanges, and pressing against the pawls for forcing the latter into engagement with the threaded shank or bolt, substantially as described.

**No. 49,026. Press. (Presse.)**



Harman Bunker Barric, Ontario, Canada, 22nd May, 1895; 6 years.

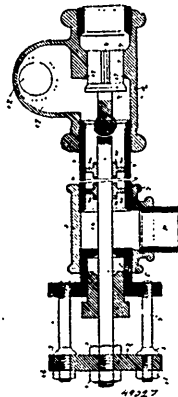
*Claim.*—1st. In a power press, the combination of a cylinder, a cylinder-support having its end extended beyond the end of the cylinder, a piston-rod provided with a plunger-head on its respective end, a baling-chamber mounted on the extended end of the cylinder or support, and composed of guide-plates to take and guide the plunger-heads, stop-plate at the end of the baling-chamber and located at a distance from the ends of the guide-plates, a lid hinged to the stop plate and one of the guide-plates, catches to hold the lid down and over the chamber, and moulds between the ends of the guide-plates and the top-plates, substantially as described. 2nd. The baling-mould herein described, consisting of the rectangular three-sided frame X, X', X'', spring-latches secured on the end-pieces of the frame, and a removable side Y', adapted to be held in position by the spring-catches of the three-sided frame, substantially as shown and described. 3rd. In a power press, of the kind herein shown, a baling-chamber, a mould-box within the baling-chamber consisting of three sides rigidly secured together, a fourth side adapted to be moved into locked connection with the other three sides of the mould, guide-plates between which the movable side is guided to the mould, and a moving-plunger adapted to slide between the guide-plates and to push the fourth side into engagement with the other portions of the mould, substantially as described. 4th. The combination of a plunger, and means to operate the same, of a baling-chamber, comprising a bed-plate, oppositely arranged guide-plates to take and guide the plunger, an end-stop arranged at a distance from the ends of the guide-plates, a cover on the chamber, a three-sided mould-box adapted to fit the space between the end-stop and the ends of the guide-plates, spring catches on the ends of the mould-box, and a movable side for the mould-box adapted to be pushed into position by the plunger and to be held by the spring catches, substantially as set forth.

**No. 49,027. Steam Trap. (Purge de tuyau de vapeur.)**

William James Gregg and The Laconia Car Company, both of Laconia, New Hampshire, U.S.A., 27th May, 1895; 6 years.

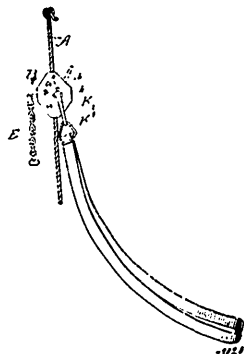
*Claim.*—1st. The combination of a casing *b*, provided with an internal valve seat, an elongated pipe *a* connecting said casing with a source of steam supply, a valve in the casing adapted to close on said valve seat, an elongated rod *i*, secured at one end of the valve and having guide wings *m*, and extending through a stuffing box at its other end, the cross-bar *k* secured to a flange of the stuffing box by bolts *c* and having an opening for the rod *i*, said rod being of a metal which has a different co-efficient of expansion from that in the pipe, and nuts *c'*, *c''*, on the rod each side of the cross-bar whereby when the temperature of the pipe is reduced to a pre-determined degree, the valve will be opened, as set forth. 2nd. The combination of the casing *b*, having the internal valve seat, and a suitable setting chamber below said seat having an outlet or outlets

provided with removable plugs, the elongated pipe *a* connected with said casing and with a steam supply pipe, a valve adapted to close upon said seat, an elongated rod having a different co-efficient of expansion and contraction from that of the pipe *a* connected at one end with the valve, and extending through the pipe *a*, and having rings *m*', provided with radial arms bearing outward against the interior of the pipe *a*, stuffing box secured to a suitable part of said



pipe and receiving the rod, the cross-bar *k* rigidly connected with the stuffing box, and having an aperture through which said rod passes and the adjusting nuts engaged with a threaded portion of the rod, and bearing against opposite sides of said cross-bar whereby the rod may be adjusted and secured at any desired point, as set forth. 3rd. The combination of the casing *b* having an internal valve and valve seat, an elongated pipe *a* connecting said casing with a source of steam supply, an elongated rod *i* and spring and spring-chamber at one end connecting with the valve *k* and having guide wings *m*' and extending through a stuffing box at its other end, the cross-bar *k* secured to a flange of the stuffing box by bolts *c* and having an opening for the rod *i*, said rod being of a metal which has a different co-efficient of expansion and contraction from that of the pipe *a*, the nuts *c'*, *c''*, on the rod each side of the cross-bar whereby when the temperature of the rod is reduced to a pre-determined degree the valve will be opened, as set forth.

**No. 49,028. Fire Escape. (Sauveteur d'incendie.)**

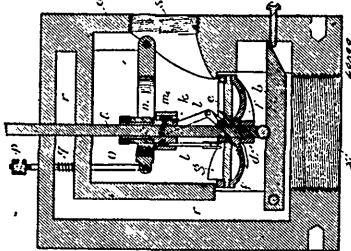


George M. Thompson and Charles B. Cutler, both of Lowell, assignees of Charles M. Fowler, Springfield, all in Massachusetts, U.S.A., 27th May, 1895; 6 years.

*Claim.*—1st. The herein described fire escape, comprising a rope, a frame or casing arranged to slide upon said rope, said frame or casing having apertures at opposite points to receive said rope, a cam lever pivoted in said casing and having its longer arm projected outwardly therefrom, a chain attached to said longer arm, a yoke pivoted to the shorter arm of said lever and free to swing partially around said frame or casing whereby the latter may be used reversely end for end, lugs in said frame or casing adjacent to said lever and forming therewith frictional guides for said rope and a belt or sling

attached to said yoke, substantially as specified. 2nd. In a first escape, a frictional device B, comprising a frame or casing having an opening in each end portion thereof, said opening being opposite each other, a cam lever pivoted within the said frame or casing and having its longer arm projecting outward therefrom, cam projections  $f, f^1$  and  $g, g^1$ , on the shorter arm of said lever two upon its upper and two upon its lower edge, lugs adjacent to said lever, and forming therewith frictional guides for a rope and a swinging yoke attached to the shorter arm of said lever, substantially as specified. 3rd. In a first escape, a frictional device, comprising a box or casing having apertures in its ends for a rope, a lever D pivoted in said box or casing, and having its longer arm projected outward from said casing, a chain attached to said arm a bolt or pin through the shorter arm of said lever, said bolt or pin projecting through slots in the box or casing, a yoke pivoted on said bolt or pin, the lugs H, H<sup>1</sup>, H<sup>2</sup> in said box or casing, and forming with the flanges thereof, and with said lever guides for a rope, and cam projections  $f, f^1$  and  $g, g^1$  on said lever, adapted to bite the rope against the said lugs H and H<sup>1</sup>, substantially as specified.

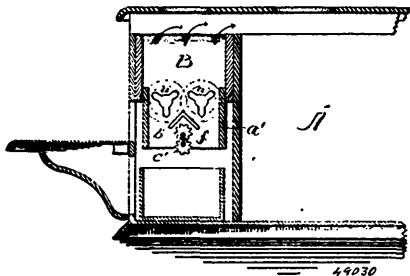
**No. 49,029. Water-Wheel. (Roue hydraulique.)**



Frank W. Wood, Baldwin, and Joseph Owen, Portland, both in Maine, U.S.A., 27th May, 1895; 6 years.

**Claim.**—1st. A water-wheel consisting of a hub and rim, said rim being composed of two sections suitably fastened together and fixed blades located between the hub and one section of said rim, in combination with pivoted blades pivotally mounted in the hub and between said two sections adapted to close the passages between the fixed blades, and means for turning the movable blades to open passages for the water, substantially as set forth. 2nd. A water-wheel, consisting of a hub and rim, fixed blades and movable blades adapted to close the spaces between said fixed blades, a sleeve on the shaft, pivoted links connecting said movable blades and said sleeve, and a ferrule loosely mounted on said sleeve and adapted to hold the ends of said links, substantially as set forth. 3rd. A water-wheel consisting of a hub and rim composed of two sections lying adjacent to each other and securely fastened together, fixed blades located between said hub and one section of said rim, in combination with the pivoted blades mounted between said hub and the other section of said rim, adapted to close the passages between the fixed blades, and means for adjusting the movable blades to open or close more or less completely the passages between the fixed blades, substantially as set forth. 4th. The combination with a water-wheel of any approved construction, of an inclosing case, the shaft of the wheel passing through said case, said case having a passage-way in the path of the shaft and extending thence around and into communication with the waste pipe, substantially as set forth.

**No. 49,030. Stove and Grate. (Poêle et grille.)**

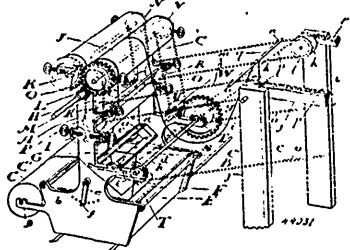


Mary McNamara and Cornelia Cotton, assignees of John McNamara and Cameron Cotton, all of Bath, New York, U.S.A., 27th May, 1895; 6 years.

**Claim.**—1st. The combination with a stove, of a grate mounted

within a frame, a shaft mounted in said frame beneath the grate provided with a cog, a similar shaft mounted beneath the grate provided with cogs and means for rotating said shaft for the purpose of raising and lowering the grate, as set forth. 2nd. In a stove, the combination with a frame having a grate mounted therein, a shaft mounted therein and beneath the grate, of a similar shaft mounted beneath the grate and provided with eccentrically pivoted cogs, means for rotating said shaft and means for locking said shaft at any point desired.

**No. 49,031. Machine for Painting Fabrics. (Machine pour peindre les tissus.)**



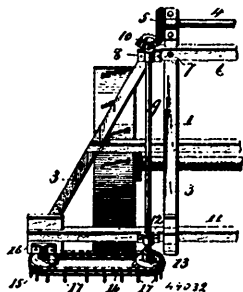
John McIvor, assignee of Edwin Armitage, both of Toronto, Ontario, Canada, 27th May, 1895; 6 years.

**Claim.**—1st. In a machine for painting fabrics, a pair of feed rollers, a colour tank, a roller for guiding the fabric through the colour tank, in combination with a double scraper located above the said colour tank and arranged to scrape both sides of the fabric, substantially as and for the purpose specified. 2nd. In a machine for painting fabrics, a pair of feed rollers, a colour tank, a roller for guiding the fabric through the colour tank, in combination with a double adjustable journalled scraper located above the said colour tank and arranged to scrape both sides of the fabric, substantially as and for the purpose specified. 3rd. In a machine for painting fabrics, a scraper comprising the following elements:—Heads journaled in the frame of the machine, side pieces rigidly connecting the said heads, and scraping blades formed on or connected to the said side pieces, substantially as and for the purpose specified. 4th. In a machine for printing fabrics, the combination of a colour tank, a roller for guiding the fabric through the colour tank, a double scraper located above the said colour tank, a pair of revolving brushes, a pair of feed rollers, and a driving gear pinion and intermediate gearing and chain and sprocket connections for imparting motion to said brushes and rollers, substantially as and for the purpose specified. 5th. In a machine for painting fabrics, the combination of a colour tank, a roller for guiding the fabric through the colour tank, a double scraper located above the said colour tank, a pair of adjustable revolving brushes, a pair of adjustable feed rollers and a driving gear pinion and intermediate gearing and chain and sprocket connections for imparting motion to said brushes and rollers, substantially as and for the purpose specified. 6th. In a machine for painting fabrics, the combination of a colour tank, a roller for guiding the fabric through the colour tank, a double scraper located above the said colour tank, a pair of transversely movable adjustable revolving brushes, a pair of feed rollers, a driving gear pinion and intermediate gearing and chain and sprocket connections for imparting motion to said brushes and rollers, substantially as and for the purpose specified. 7th. In a machine for painting fabrics, two carrier chains in combination with two looping chains, one or more sticks carried by said looping chains, sprocket-wheels carrying said chains, and a driving gear pinion and intermediate gearing and chain and sprocket connections for driving said sprocket-wheels and chains, substantially as and for the purpose specified. 8th. In a machine for painting fabrics, the combination of two pairs of sprocket-wheels  $k$  and  $l$ , carried by the driving rack  $j$ , two pairs of sprocket-wheels  $i$  and  $R$ , carried by the main frame  $A$ , the chains  $m$ , supported on the rack  $j$ , the chains  $o$ , adapted to carry one or more sticks  $q$ , and a driving gear pinion  $L$  and intermediate gearing and sprocket-wheel and chain connections for imparting motion to said sprocket-wheels and chains, substantially as and for the purpose specified. 9th. In a machine for painting fabrics, a scraper comprising the following elements, heads  $a$ , trunnions  $b$ , connected to the said heads and journaled in the frame of the machine, side pieces  $c$ , rigidly connecting the said heads, scraping blades formed on or connected to the said side pieces, an arm  $e$ , connected to one of the said trunnions and provided with a pin adapted to enter any one of a series of holes in the frame of the machine, substantially as and for the purpose specified. 10th. In a machine for painting fabrics, the combination of a colour tank, a roller for guiding the fabric through the colour tank, a double scraper located above the said colour tank, a pair of feed rollers, two looping chains, lugs on the said looping chains, one or more sticks carried by the looping chains, two carrying chain, a drying rack, and a driving gear pinion and intermediate

gearing and chain and sprocket connections, giving motion to the several parts, substantially as and for the purpose specified.

**No. 49,032. Attachment for Harvesting Machines.**

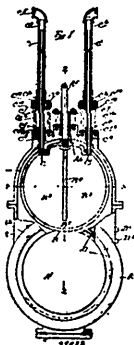
(Attache pour moissonneuses.)



Anthony McConnell, Palmer, Wisconsin, U.S.A., 27th May, 1895; 6 years.

*Claim.*—1st. An attachment for harvesters adapted to sweep the grain out of the path of the main or bull wheel, consisting of a pair of sprocket-wheels carrying a sprocket-chain having depending teeth or spikes thereon and means for operating said sprocket-wheels from the main shaft of the harvester, substantially as and for the purposes described. 2nd. The combination with a harvester of an attachment thereof adapted to sweep the grain from the path of the main or bull wheel of said harvester, the same consisting of the combination of a pair of cross-bars adapted to be secured to the main frame of the harvester in advance of the main or bull wheel, a rod or shaft having a bevelled gear at its upper end meshing with a gear wheel on one of the operating shafts of said harvester and carrying at its lower end a sprocket wheel, a second sprocket-wheel mounted in suitable bearings in said cross-bars and a sprocket-chain carrying depending spikes or teeth actuated by said sprocket-wheels, substantially as and for the purposes specified.

**No. 49,033. Hot Gas Valve. (Soupape à gaz.)**



John T. Christie, Troy, New York, U.S.A., 27th May, 1895; 6 years.

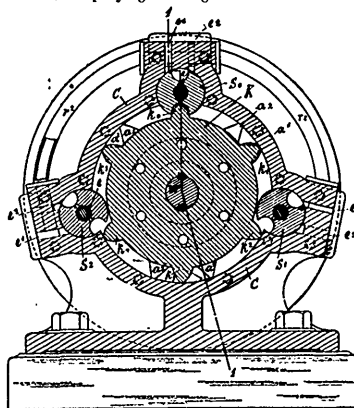
*Claim.*—In a valve, the combination with the valve-case, chambered slide-gate and means for operating the gate, of inlet and outlet pipes fixed upon the gate in communication with the gate-chamber, supply and discharge pipes fixed upon the valve-case, coupling mechanism on the outer ends of the supply and discharge pipes, and water-tight telescoping connections between the inlet and supply pipes, and between the outlet and discharge pipes, substantially as described.

**No. 49,034. Rotary Engine. (Machine rotative.)**

Albert August Kryszat, Aschersleben, Germany, 27th May, 1895; 6 years.

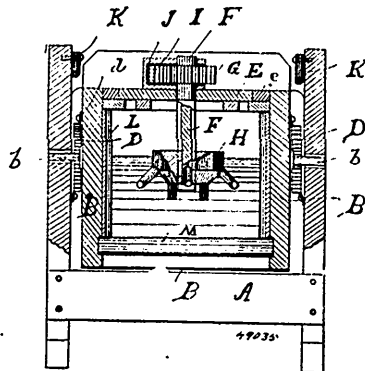
*Claim.*—1st. A rotary engine actuated by steam or other fluid consisting of a piston C, whose periphery is provided with teeth or ridges K<sup>1</sup>, K<sup>2</sup>, etc., on which the actuating fluid acts in combination with rotary valves S<sup>1</sup>, S<sup>2</sup>, etc., acting also as abutments and admitting the actuating fluid through ports or c<sup>1</sup>, in such manner

that the piston works partly at full pressure and partly with expansion in every part of its rotation, substantially as described and shown in the accompanying drawing. 2nd. In combination with



a rotary engine, a piston C, whose periphery is provided with teeth or ridges and rotary valves, acting also as abutments and admitting the actuating fluid into the cylinder, such valves being arranged at equal distances apart or at unequal distances, in which latter case an unequal number of valves and teeth are provided, substantially as described and shown in the accompanying drawing. 3rd. In combination with a rotary engine, a piston provided with teeth or ridges, rotary valves acting also as abutments, exhaust ports i<sup>1</sup>, of valves i<sup>2</sup>, working independently of the rotary valves, so as to further utilize the exhaust steam by passing same into a space a, formed between the double walls of the engine, substantially as described and shown in the accompanying drawing.

**No. 49,035. Washing Machine. (Machine à laver)**



Napoleon Louis Gobeille, L'Ange Gardien, Quebec, Canada, 27th May, 1895; 6 years.

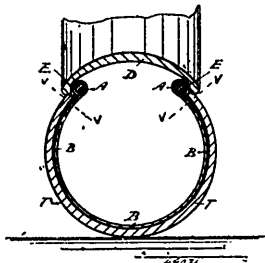
*Claim.*—1st. In a washing machine, the combination with a frame A, of said box journalled by trunnions in the said frame, and clock springs D, secured to the said frame and said box and encircling the trunnions, substantially as set forth. 2nd. In a washing-machine, the combination with a said box journalled by trunnions so as to be oscillated in a suitable frame, of a hinged lid, closing a central opening in the said box, a vertical shaft journalled in the said lid, a pinion secured on the upper end of the said shaft, a peggy carried slidingly on the lower end of the said shaft, a rack held by a bail pivoted to the frame, the said rack engaging the said pinion, substantially as set forth.

**No. 49,036. Bicycle Tire. (Bandage de bicyclette.)**

Richard Russell, Hamilton, Ontario, Canada, 27th May, 1895; 6 years.

*Claim.*—1st. In a bicycle-wheel tire, the adjustable rings of circu-

lar form, partially encased and securely fastened in the folded edges of a tubular fabric lining said rings being capable of circular adjustment by means of one or more apertures in a rigid sleeve, or ferrule of the ring, and a series of apertures, or notches in the outer circular side of end of ring to be brought together and securely fastened by



means of pins or screws which pass through said apertures in combination with a concealed rim, outer tire and air-tube for inflating purposes, substantially as described. 2nd. A cycle tire consisting of adjustable wire rings, encased in the folded edges of a fabric lining of tubular form and secured therein, an outer covering or tire stitched or otherwise fastened by its edges to the folded part of said lining and contiguous to the rings thereof, a rim the outer circle of which is concealed with slight inward inclined side curves, and an air-tube provided with the proper means of inflation, substantially as described. 3rd. A cycle tire consisting of two wire rings having elongated sleeves and apertured to receive one or more pins or screws to engage with the apertures in the end of connecting ring, being capable of adjustment, said rings encased in the folded edges of a fabric lining of tubular and circular form and fastened thereto, an outer tire secured to the lining the outer circle of a rim of wheel concealed to receive the inner and ringed part of said tire which is supplied with an inner tubular tube capable of inflation by usual means, substantially as described.

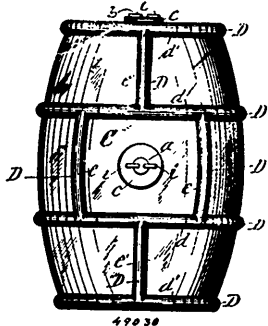
**No. 49,037. Bicycle Saddle. (Selle de bicyclet.)**



William Crauch McIntire, Washington, Columbia, U.S.A., 27th May, 1895; 6 years.

*Claim.*—As a new article of manufacture a bicycle saddle cover composed of waterproof elastic material, with overlapping flanges to embrace the edges of the saddle, and adapted to be held in position by the contractive action of the material, substantially as and for the purpose set forth.

**No. 49,038. Keg. (Baril.)**

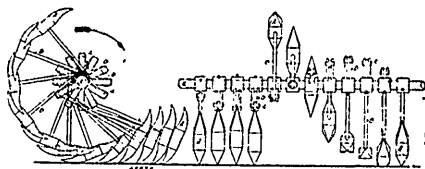


Frank Haynes Waite, Holley, New York, U.S.A., 27th May, 1895; 6 years.

*Claim.*—The combination with a glass keg having grooves *d'*, in the chimes and parallel grooves *d*, in the bulges, and having longitudinal grooves *c*, communicating with the grooves *d*, and correspond-

ing grooves *c'*, located opposite the space between the grooves *c*, and connecting at their ends with the said grooves, *d*, and the chime grooves *d'*, and a protective jacket composed of a series of rings to fit into the grooves *d* and *d'*, and project beyond the sides and ends of the barrel and longitudinal bars, corresponding in position with and adapted to be seated in the grooves *c*, and *c'*, and connecting the said rings together, substantially as described.

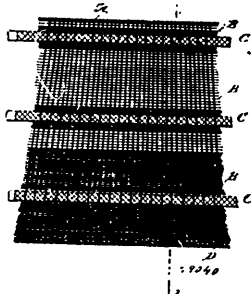
**No. 49,039. Excavating Machine. (Excavateur.)**



John Henry Stephens, Peterborough, Ontario, Canada, 27th May, 1895; 6 years.

*Claim.*—The combination of the shaft E, arms D, handles B, and picks A, substantially as and for the purpose hereinbefore set forth.

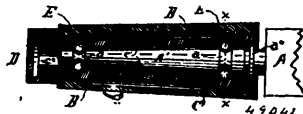
**No. 49,040. Lining. (Garniture.)**



John August Kramer, Brooklyn, New York, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. As a new article of manufacture, a fabric lining woven in conical shape to conform to the conical shape of a skirt, substantially as shown and described. 2nd. As a new article of manufacture, a fabric lining woven in conical form to conform to the conical shape of a skirt, and stiffening ribs bound in the fabric by the weft thread thereof, substantially as shown and described. 3rd. As a new article of manufacture, a fabric lining woven in a conical shape and formed at its lower edge with a corded edge integral with the fabric, substantially as shown and described.

**No. 49,041. Ball Bearing. (Cousinet à roulettes.)**

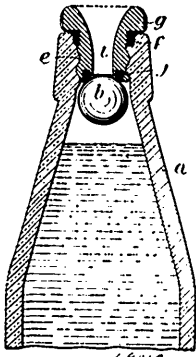


James H. Myers, Grand Rapids, Michigan, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. In a ball bearing for vehicles, a spindle *A*<sup>1</sup>, having grooves around its working bearing and balls to travel therein, in combination with a sleeve divided longitudinally, and having grooves formed around its inner surface, and a supporting box, said sleeve fitted into said box and secured to revolve with the wheel, substantially as and for the purpose set forth. 2nd. In a ball bearing, a spindle having grooves around its working bearing, and balls to travel in said grooves, in combination with a sleeve divided longitudinally, and having corresponding grooves around its inner surface, each of said grooves being nearly semi-circular in transverse section, a supporting box secured in the hub, and a jamb nut for adjustably securing said sleeve, substantially as and for the purpose set forth. 3rd. In a ball bearing, a spindle having grooves around its working bearing and balls to travel in said grooves, in combination with a sleeve divided longitudinally into halves, and having grooves around their inner surface corresponding with the grooves on the axle, each of said grooves nearly semi-circular in transverse

section, an oil chamber between the spindle and the sleeve, a closed joint put at the outer end and a groove and shoulder at the inner end of the sleeve to form dust proof joints, substantially as and for the purpose set forth.

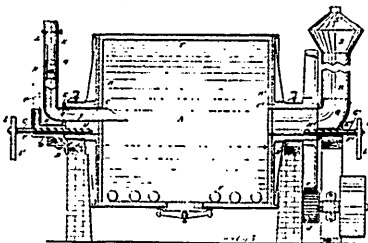
**No. 49,043. Bottle Stopper. (Bouchon de bouteilles.)**



John James Varley, London, England, 28th May, 1895; 6 years.

*Claim.*—1st. In bottles for containing aerated liquids, the combination of a screw stopper having a hole through it for filling with an internal stopper for closing the filling hole, and means for retaining the internal stopper within the bottle when the stopper is unscrewed, substantially as described. 2nd. In bottles for containing aerated liquids, the combination of a screw stopper having a hole through it for filling purposes, with an internal stopper for closing the filling hole, substantially as described. 3rd. The combination of a bottle, an internal stopper within the bottle, and means within the bottle to prevent the stopper falling to the bottom of the bottle, substantially as described. 4th. The combination of a bottle, an internal stopper within the bottle, means within the bottle to prevent the stopper rolling to the mouth of the bottle when the contents are being discharged, substantially as described. 5th. The combination of a bottle, an internal stopper within the bottle, means within the bottle to prevent the stopper rolling to the mouth of the bottle when the contents are being discharged. 6th. The combination of a bottle, an internal stopper within the bottle, the body of the bottle intermediate the mouth and bottom, being contracted to prevent the stopper falling to the bottom of the bottle, substantially as described.

**No. 49,043. Process of and Apparatus for Milling Ores. (Procédé et appareil pour broyer le minerai.)**



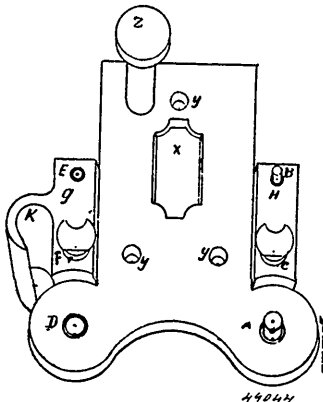
John Glenville Murphy and Richard William Frank Abbe, both of New York, State of New York, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. The process of milling ores, containing gold and silver consisting in pulverizing the ore into an impalpable powder and then blowing this powder into an amalgamating pan, substantially as herein shown and described. 2nd. The process of milling ores, containing gold and silver consisting in pulverizing the ore to an impalpable powder, blowing this powder into an amalgamating pan and adding water to form a paste, whereby the gold and silver adheres to the amalgamated plates in the pan, substantially as herein shown and described. 3rd. The process of dry concentrating gold ores, consisting in converting the ore into an impalpable powder and blowing the powder produced from the pulverizer into a vertical chute and thus separating the lighter gangue from the heavier gold

by gravity, substantially as herein shown and described. 4th. The combination, with a cylinder, of an inlet neck on one head of the cylinder, an outlet neck on the other head of the cylinder and a conveyor screw mounted at each of said necks to convey the material under treatment into the cylinder and means for operating said screws, substantially as set forth. 5th. The combination, with a cylinder, of an inlet neck on one head of the cylinder, an outlet neck on the other head, a conveyor or screw located at each neck, for conveying the material under treatment into the cylinder, a pipe for supplying material to be pulverized to the cylinder, a compressed air supply tube for conducting compressed air into the cylinder and an outlet tube connected with the outlet neck of the cylinder, substantially as herein shown and described. 6th. The combination, with a cylinder, of an inlet neck on one head of the same, an outlet neck on the opposite head, a conveyor screw located at each neck for conveying the material under treatment into the cylinder, a pipe for supplying material to be pulverized, a compressed air supply tube for conducting air under pressure into the cylinder, and a vertical outlet tube connected with the outlet neck of the cylinder which outlet tube is provided at its upper end with an enlargement, substantially as herein shown and described. 7th. The combination, with a cylinder, of an inlet neck on one head of the same, an outlet neck on the opposite head a conveyor screw located at each neck for conveying the material under treatment into the cylinder, a pipe for supplying material to be pulverized, a compressed air supply pipe for conducting air under pressure into the cylinder, and a vertical outlet tube connected with the outlet neck of the cylinder and provided at its upper end with an enlargement, the top of which is reduced to less than the diameter of the outlet tube, substantially as herein described and as shown in the drawings. 8th. The combination, with a cylinder, of an inlet neck on one end head of the same and an outlet neck on the other head, of a fixed piece adjacent to each neck, a material supply pipe and a compressed air supply tube connected with one of said fixed pieces, a nozzle held in said piece and projecting into the cylinder and having its end bevelled or cut off diagonally and an outlet tube connected with the other fixed piece, substantially as herein shown and described.

**No. 49,044. Coupler for Straw Carriers.**

(Attelage pour monte-foin.)



Allan John Lindsay, Renfrew, Ontario, Canada, 28th May, 1895; 6 years.

*Claim.*—1st. In a straw carrier coupler, keys each having a large pin P at one end, a smaller pin Q at the other end, a threaded aperture R in the centre, and the body portion tapered from the centre towards both ends, as and for the purpose set forth. 2nd. In a straw carrier coupler, thumb screws each having a shoulder S, journal bearing T, collar U, and thread end V, as and for the purpose set forth. 3rd. In straw carrier couplers, the combination of keys and thumb screws, formed, arranged and operated, substantially as and for the purpose hereinbefore set forth.

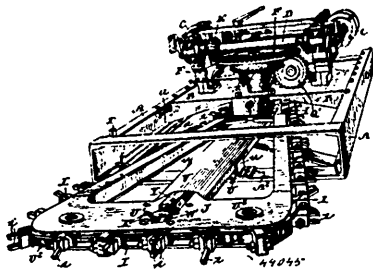
**No. 49,045. Mining Machine. (Machine à miner.)**

James Alexander Wiggs, jun., Birmingham, Alabama, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. In a mining machine, a combined clutch and gear having two sets of cog-teeth and a friction clutch surface, in combination with a driving shaft and intermediate gears engaging one set of such teeth a gear-wheel and an intermediate train of gears meshing with the other set of the said cog-teeth, a shaft on which the said gear-wheel and the said combined clutch and gear are loosely



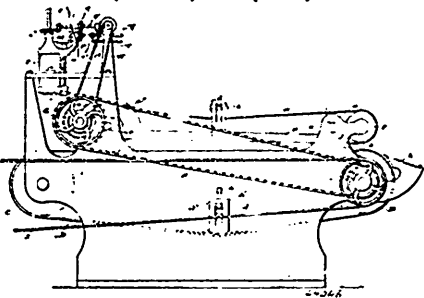
mounted, a clutch feathered on the said shaft and adapted to engage the said gear wheel and the said clutch and gear alternately, cutting devices and mechanism driven by the said shaft for feeding forward the said cutting devices and withdrawing them alternately, substantially as set forth. 2nd. In a mining machine a combined clutch and gear having two sets of cog-teeth and a friction clutch surface,



in combination with a driving shaft and intermediate gears engaging one set of such teeth a gear-wheel and an intermediate train of gears meshing with the other set of the said cog-teeth, a shaft on which the said gear-wheel and the said combined clutch and gear are loosely mounted, a clutch feathered on the said shaft and adapted to engage the said gear-wheel and the said combined clutch and gear alternately, cutting devices, mechanism driven by the said shaft for feeding forward the said cutting devices and withdrawing them alternately, a shifting lever engaging the said clutch fixed and stops arranged to be struck by the said lever to cause the shifting of the clutch automatically from the said gear-wheel to the said combined clutch and gear or back again as the movable frame approaches either end of its travel, substantially as set forth. 3rd. In a mining machine, a combined clutch and gear having a set of bevel teeth, a set of spur-teeth and a friction clutch surface, in combination with a bevel-wheel K, engaging the said bevel teeth, a gear-wheel F, fast to and turning with the said wheel K, a driving shaft and gear meshing with said wheel F, a loose gear-wheel P, on the shaft M, with the said combined clutch and gear, a gear-wheel Q, engaging the spur-gears of the latter, gearing from the wheel Q, to the wheel P, a clutch arranged for alternate engagement with the wheel P, and the combined clutch and gear aforesaid and feathered on the shaft M and between them, a transverse shaft carrying pinions mounted in the movable frame, which bears the cutters and geared to this shaft M, and a pair of racks attached to the fixed frame of the machine and arranged to be engaged by the said pinions, substantially as and for the purpose set forth. 4th. In a mining machine, a movable frame a pusher bar attached thereto, travelling cutter carried by the said pusher bar, and mechanism for actuating the said movable frame and cutters, in combination with a fixed frame, provided with guides ways for the said movable frame, and also with a pair of raised lugs arranged on each side of the pusher bar for bracing the same against lateral strain of the cutters, substantially as set forth.

#### No. 49,046. Pill Making Machine.

(Machine à faire des pilules)



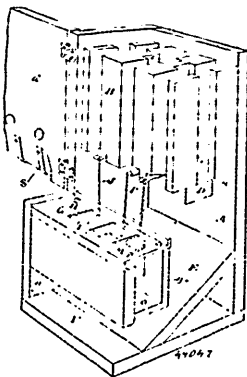
Arthur Colton, Detroit, Michigan, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. In a pill making machine, the combination of endless travelling belts, of which contiguous faces travel in opposite directions, supporting plates behind said belts, one of said plates being bent, whereby the distance between the plates decreases from the feed end to a point between the feed end and the delivery end and remains constant between said point and the delivery end, substantially as specified. 2nd. In a pill making machine, in combination with belts adapted to roll the mass into pipes, a hopper, means

adapted to force the mass through the hopper, a cutting-off knife rotating under the mouth of said hopper, and means adapted to vary the relative speed of the belts and knife, substantially as specified. 3rd. In a pill machine, the combination with two travelling belts having contiguous faces, means for driving the belts in opposite directions at relative different speed, and adjusting means for varying the inclination of the belts in relation to each other, substantially as described. 4th. In a pill making machine, the combination of endless travelling belts, of which contiguous faces travel in opposite directions, supporting plates behind said belts, one of said plates being fixed with respect to the main framework, and the other of said plates being hinged at one end to the main framework, and supported in adjustable bearings at the other end, substantially as described. 5th. In a pill machine, the combination with a frame of two supporting and backing plates extending lengthwise of the frame and one arranged above the other, an endless belt surrounding the lower plate and having its upper portion resting on or in proximity to the upper surface of the plate, an endless belt surrounding the upper plate and having its lower portion arranged against or in proximity to the under surface of the upper plate, and means for driving the contiguous portions of the belts in opposite directions at relative different speeds, substantially as described.

#### No. 49,047. Coin Operated Vending Machine.

(Machine de vente actionnée par une pièce de monnaie.)



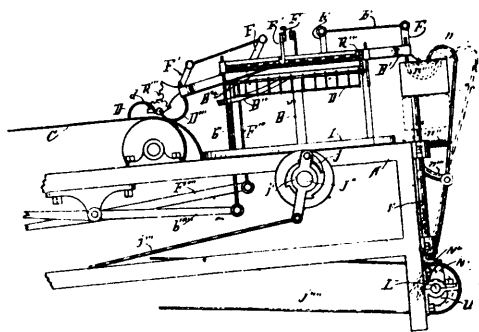
Joseph Mackin, Toronto, Ontario, Canada, 28th May, 1895; 6 years

*Claim.*—1st. In a coin operated vending machine, the combination of the coin receiving chamber, a top for the coin receiving chamber through which is formed the coin receiving slot, a spring-operated dog pivoted on the underside of the top of the coin receiving chamber, one end of the spring-operated dog overlapping the last slot, the other end of the spring-operated dog being notched, an operating lever, an operating plate connected to the operating lever interposed between the slot and the coin receiving chamber, adapted to be operated by the requisite coin to move the operating lever to deliver from the magazine a portion of its contents, substantially as specified. 2nd. In a coin operated vending machine, the combination of the coin receiving chamber, a top for the coin receiving chamber, a coin receiving slot formed through the top of the coin receiving chamber, a spring-operated dog pivoted to the underside of the top of the coin receiving chamber, one end of the dog overlapping the adjacent end of the coin receiving slot, the opposite end of the dog notched, an operating lever normally held by the notched end of the said dog, an operating plate, connected to the operating lever, interposed between the coin receiving slot and the coin receiving chamber, and adapted to be moved by the entry of the requisite coin through the said slot into the coin receiving chamber a delivery arm connected to the operating lever and the magazine, substantially as specified. 3rd. In a coin operated vending machine, the combination of the coin receiving chamber, a top for the coin receiving chamber, a coin receiving slot formed through the said top, an operating plate interposed between the said slot and the coin receiving chamber, adapted to be operated by the admission of the requisite coin through the coin receiving slot into the said chamber, substantially as specified. 4th. In a coin operated vending machine, the combination of the coin receiving chamber, a top for the coin receiving chamber, a coin receiving slot formed through the said top, an operating plate interposed between the said slot and the coin receiving chamber, adapted to be operated by the admission of the requisite coin through the coin receiving slot into the said chamber, an operating lever connected to the said operating plate, and adapted to be moved thereby, a spring-operated dog arranged to normally lock the said lever and plate, and to release the said

lever and plate during the entry of the requisite coin through the said slot, substantially as specified. 5th. In a coin operated vending machine, the combination of the coin receiving chamber, a top for the coin receiving chamber, a coin receiving slot formed through the said top, an operating plate interposed between the said slot and the coin receiving chamber, adapted to be operated by the admission of the requisite coin through the coin receiving slot into the said chamber, an operating lever connected to the said operating plate and adapted to be moved thereby, a spring-operated dog arranged to normally lock the said lever and plate, to release the said lever and plate during the entry of the requisite coin through the said slot, a delivery arm connected to the operating lever and the magazine, the contents of which are arranged to be delivered by the delivery arm, substantially as specified. 6th. In a coin operated vending machine, the combination of the coin receiving chamber, a coin receiving slot formed through the said top, an operating plate interposed between the said slot and the coin receiving chamber, adapted to be operated by the admission of the requisite coin through the coin receiving slot into the said chamber, an operating lever connected to the said operating plate and adapted to be moved thereby, a spring-operated dog arranged to normally lock the said lever and plate, to release the said lever and plate during the entry of the requisite coin through the said slot, a delivery arm connected to the operating lever and the magazine, the contents of which are arranged to be delivered by the delivery arm, and a rock shaft pivoted within the coin receiving chamber provided with a series of prongs entering the slot in the operating plate, to prevent the operating coin being held in the coin receiving slot to repeat the operation of the operating mechanism, substantially as specified. 7th. In a coin operated vending machine, the combination with the operating mechanism of a coin receiving slot to admit of the entry of the requisite coin to operate the mechanism, a coin retaining spring within the casing of the vending machine overhanging the coin receiving slot, to prevent the withdrawal of the coin after operating the mechanism, substantially as specified. 8th. In a coin operated vending machine, the combination of the coin receiving chamber, a coin receiving slot entering the coin receiving chamber, the operating mechanism, and a coin gauge interposed between the coin receiving slot and the coin receiving chamber, whereby only the requisite coin can operate the machine, substantially as specified.

**No. 49,048. Machine for Coating Chocolate.**

(Machine à enduire le chocolat.)

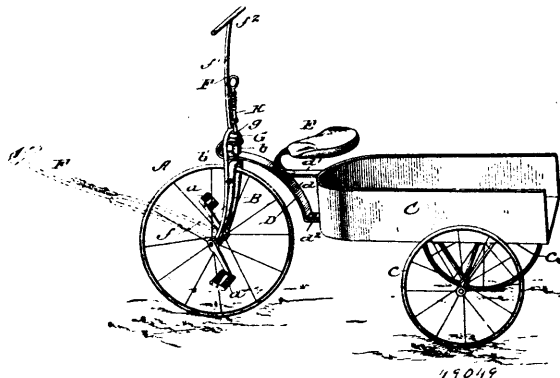


Peter J. Vanderlinda, and Herbert M. Dickinson, both of Grand Rapids, Michigan, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. In a chocolate coating machine, a frame supporting a revolving carriage, arms pivoted to said carriage, cups at the outer ends of said arms, a pan supported upon vertically reciprocating rods, and a shaft provided with eccentrics to raise and lower said rods, as shown and described. 2nd. In a chocolate coating machine, a frame supporting a revolving carriage, arms pivoted to the carriage, receiving cups pivoted to the ends of said arms anti-friction rollers on the arms, a track to support the rollers one section of which is pivoted at one end to the frame, and supported at the other by a vertically reciprocating lever to raise and lower the cups, a vertically reciprocating pan, and transfer trays, substantially as shown. 3rd. In a chocolate coating machine, a frame, a revolving carriage on the frame, arms pivoted to the carriage, cups pivoted to the ends of the arms, transfer trays to carry stock from the cups, levers for throwing the cups from the arms over to the trays and back, and a dipping pan, substantially as and for the purpose set forth. 4th. In a chocolate coating machine, a frame supporting a revolving carriage having arms pivoted thereto, a track for supporting the arms, one section of said track pivoted at one end to the frame, the other end supported by a lever to reciprocate vertically,

a lever and cam for operating said section of track, cups pivoted to the arms to receive stock with the flat end up and turn over to discharge it on trays with the flat end down, a lever and cam for throwing the cups over and back, shelves pivoted to be thrown to and from under the cups, hooks on the shelves to engage with the slides B<sup>1</sup>, to throw the shelves from under the cups, and weights to throw them back, and a vertically reciprocating chocolate pan, substantially as and for the purpose set forth. 5th. In a chocolate coating machine, a frame supporting a revolving carriage carrying receiving cups, a vertically reciprocating chocolate pan in position to immerse the cups and their contents, a guard to throw over the cups and prevent the stock from floating with the chocolate in the pan, and a dasher for agitating the chocolate in the pan, substantially as and for the purpose set forth. 6th. In a chocolate coating machine, a frame supporting a vertically reciprocating chocolate pan, a storage tank above said pan, a receiving shelf between the two, scrapers to draw the chocolate from the shelf to the pan, a dasher in the pan, a carriage for carrying stock to and from the pan, a guard to prevent the stock from floating when immersed in the chocolate in the pan, a track for supporting the carriage arms, one section of which is disconnected so that one end may reciprocate vertically, dripping shelves and pans under the cups, said shelves adjusted to be thrown to and from under the cups, a blower to cool the coated stock, and trays supported upon an endless belt to convey the stock from the cups, substantially as and for the purpose set forth. 7th. In a chocolate coating machine, a frame supporting a revolving carriage, cups on said carriage to convey the stock to and from the dipping-pan, and a vertically reciprocating dipping-pan provided with a flue, and automatic valves for governing the temperature of the melted chocolate in the pan, and a heating appliance, substantially as and for the purpose set forth. 8th. In a chocolate coating machine, a frame supporting a revolving carriage, cups on said carriage to convey the stock to and from the dipping-pan, and a vertically reciprocating dipping-pan divided into two compartments so situated that the melted chocolate will flow from the upper into the lower, said upper compartment provided with a flue and automatic valves, and a dasher for stirring the chocolate, a guard over the lower pan to prevent the stock from floating in the chocolate, and a spring and lever to actuate the guard, substantially as and for the purpose set forth.

**No. 49,049. Velocipede. (Vélocipède.)**



William C. Foster, La Crosse, Wisconsin, U.S.A., 28th May, 1895; 6 years.

*Claim.*—1st. In a velocipede and wagon, the combination of the wagon body, seat frame, wheel and fork, the handle bar, pivotally connected with the wheel fork, and the spring bolt for locking said handle bar in an upright position, whereby it is adapted for use as a steering device, substantially as shown and described. 2nd. In a combined velocipede and wagon, the combination of the wagon body, suitably supported at its rear end, the propelling wheel, and means for revolving the same, the wheel fork, in which the wheel is mounted, the spring frame connecting the wagon body, and wheel fork, the seat mounted upon said frame, the socketed cap, mounted upon the top of wheel fork, and the spring actuated locking bolt, carried by the handle bar, substantially as shown and described. 3rd. The combination with a steering wheel and fork of the spring bar frame composed of the bars *d*, and *d*<sup>1</sup>, shaped and connected as described, the seat supported by the bar *d*<sup>1</sup>, and the wagon body connected to the rear ends of the said bar, substantially as shown and described. 4th. The combination with the steering wheel and fork of the independent handle bar or tongue, the wagon body and the connecting frame comprising the bars *d* and *d*<sup>1</sup>, the bar being bent at *d*<sup>2</sup> and *d*<sup>3</sup>, and the seat carried upon the upper end of the bar *d*<sup>1</sup>, substantially as shown and described.



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

3939. THE WM. A. FRAZER WOOD MANUFACTURING COMPANY, (assignee), 2nd five year term of Patent No. 34,208, from the 1st May, 1895. Coffin, 1st May, 1895.
3940. EDWIN H. PHILLIPS, 2nd five years of Patent No. 34,226, from 2nd May, 1895. Rotary Brush, 1st May, 1895.
3941. ALFRED JOHN HEYS and SAMUEL SALKELD, 3rd five years of No. 21,619, from 7th May, 1895. Fastening for Garments, 3rd May, 1895.
3942. ROBERT HOCKLIN, 2nd five years of Patent No. 34,246, from 3rd May, 1895. Fish-way, 3rd May, 1895.
3943. JOHN D. MACKAY, 2nd five years and Patent No. 34,254, from 5th May, 1895. Seat for Stores, etc., 3rd May, 1895.
3944. AMABLE ROBIDOUX, 2nd term of Patent No. 34,316, from 3rd May, 1895. Medicinal Compound, 4th May, 1895.
3945. DANIEL BENJAMIN STEVENS, 2nd five years of Patent No. 34,325, from 22nd May, 1895. Package for Containing Fragile Glass or Like Delicate Material, 8th May, 1895.
3946. THE ONTARIO FIRE PROTECTION COM<sup>Y</sup>. (assignee), 3rd term of Patent No. 21,622, from 9th May, 1895. Chemical Fire Engine, 8th May, 1895.
3947. FELIX LOUIS DECARIE, 2nd five years of Patent No. 34,304, from the 9th May, 1895. Hose Attachment, 8th May, 1895.
3948. GEORGE BLATCHFORD, 2nd five years of Patent No. 34,306, from 12th May, 1895. Reed Organ, 9th May, 1895.
3949. CHARLES R. MORE and JOHN ALEXANDER LORIMER, 2nd five years of Patent No. 34,318, from 13th May, 1895. Fastening for Storm Windows, 10th May, 1895.
3950. ROBERT GORTON, 2nd five years of Patent No. 34,304, from 22nd May, 1895. Wire Hook or Hanger, 10th May, 1895.
3951. CARL ALBERT ROEPKE, 2nd five years of Patent No. 34,620, from 5th July, 1895. Musical Box, 13th May, 1895.
3952. THE VACUUM BRAKE COMPANY, (assignee), 3rd five years of Patent No. 21,791, from 30th May, 1895. Automatic Vacuum Brake Apparatus for Railway Brakes, 13th May, 1895.
3953. HAHNEMANN ADOPHUS CUTMORE, 2nd five years of Patent No. 34,326, from 22nd May, 1895. Speaking Tube, 14th May, 1895.
3954. THE TROJAN CAR COUPLER COMPANY, (assignee), 2nd five years of Patent No. 34,886, from 22nd August, 1895. Car Coupling, 14th May, 1895.
3955. RICHARD ARMSTRONG HAZLEWOOD, JAMES WHALEN, and ALEXANDER ROSS, (assignees), 2nd five years of Patent No. 35,206, from 15th October, 1895. Medicinal Compound, 17th May, 1895.
3956. CHARLES DAVIDSON, 2nd five years of Patent No. 34,410, from 26th May, 1895. Device for the Transmission of Power, 17th May, 1895.
3957. THE FIRM OF MASON RISCH, (assignee), 2nd five years of Patent No. 34,451, from 2nd June, 1895. Pin Block for Pianofortes, 17th May, 1895.
3958. THE DOMINION BLANKET AND FIBRE CO., (assignee), 3rd five years of Patent No. 21,627, from 19th May, 1895. Blanket, 18th May, 1895.
3959. THE YOST WRITING MACHINE COMPANY, (assignee), 2nd five years of Patent No. 34,454, from 2nd June, 1895. Type-Writing Machine, 20th May, 1895.
3960. JOHN THOMAS MILLER and FRANCIS BARRINGTON ORR, 2nd five years of Patent No. 34,570, from 21st May, 1895. Folding Trestle, 20th May, 1895.
3961. JOHN GARDNER, 2nd five years of No. 34,300, from 22nd May, 1895. Type-Writer, 21st May, 1895.
3962. WM. SCLATER & CO., (assignee), 2nd five years of Patent No. 34,363, from 21st May, 1895. Attachment for Pumps, 21st May, 1895.
3963. ALBERT A. AYER, 2nd five years of Patent No. 34,573, from 21st May, 1895. Cheese Cloth, 21st May, 1895.
3964. JASPER BATES, 2nd five years of Patent No. 34,431, from the 21st May, 1895. Fruit and Clothes Drier Combined, 22nd May, 1895.
3965. JAMES WHITEMAN, 2nd five years of Patent No. 34,429, from 21st May, 1895. Tea Harvesting Attachment, 22nd May, 1895.
3966. ALEXANDER CULLON, 3rd five years of Patent No. 21,728, from 26th May, 1895. Parturition Shears, 27th May, 1895.
3967. HENRY WOODWARD, 2nd five years of Patent No. 34,463, from 3rd June, 1895. Secondary Battery, 30th May, 1895.



## TRADE - MARKS

Registered during the month of May, 1895, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

5290. CHARLES K. MCGREGOR & FRANK W. MERRILL, Brantford, Ont., trading as MCGREGOR & MERRILL. A Medicine for the cure of Coughs, Colds, Asthma, etc., 2nd May, 1895.
5291. SAMUEL MAY, Toronto, Ont. Billiard and Pool Tables, 6th May, 1895.
5292. JOHN AUGUSTUS GIBBONS, Toronto, Ont. Shoe and Boot and Leather Polish and Dressing, 7th May, 1895.
5293. HENRY L. PIERCE, Boston, Mass., U.S.A., trading as WALTER BAKER & CO. Chocolate and Cocoa, 9th May, 1895.
5294. BERNARD & LEFEBVRE, Montréal, Qué. Cigares, 9 Mai, 1895.
- 5295 } THE PATERSON MANUFACTURING COMPANY, LIMITED, Montreal,  
5296 } Qué. Roofing and Building Papers, 11th May, 1895.
5297. QUINN BROTHERS, Montreal, Que. Self-raising Flour, 11th May, 1895.
5298. WILLIAM DUCKWORTH, Manchester, England, trading as PUCKWORTH & COMPANY. General Trade Mark, 13th May, 1895.
5299. THE WELCOME SOAP COMPANY, St. John, N.B. Soap, 15th May, 1895.
5300. CATHARINE McNEILL, (épouse judiciairement séparée de biens d'Octave Gagnon) et JOSEPH N. DUBRULÉ, St. Hyacinthe, Qué., faisant affaires sous le nom de THE EASTERN TOWNSHIP CORSET COMPANY. Corsets, 15 mai, 1895.
5301. GEORGE TAYLOR PULFORD, Brockville, Ont. Un produit pharmaceutique, 16 Mai, 1895.
5302. JAMES HUMPHRIES & SONS, LIMITED, Kidderminster, Worcester Co., England. Carpets, Rugs, Floor-cloth and Oilcloth, 16th May, 1895.
5303. ALEXANDER N. GARRETT, Toronto, Ont. Sporting Goods Supplies, 17th May, 1895.
5304. RICHARD ARMSTRONG HAZLEWOOD, JAMES WHALEN AND ALEXANDER ROSS, Port Arthur, Ont., trading as WHALEN'S RHEUMATIC OIL CO. A Medical Compound, 17th May, 1895.
5305. GEORGE HERBERT BROWN, Belfast, Ireland, trading as JOHN S. BROWN & SONS. Linen piece goods, table linens, sheetings, diapers, shirtings, lawns, handkerchiefs, muscalacks, glass cloths, dress goods, towels, holland, roughs all in the piece, linen and hemp goods not in the piece, and jute yarns and tissues, 17th May, 1895.
5306. SALMON BOSTWICK ROWLEY, Philadelphia, Pennsylvania, U.S.A. Glass Preserving Jars and parts thereof, 18th May, 1895.
5307. BRIGGS PRIESTLEY and WILLIAM E. BRIGGS PRIESTLEY, Bradford, England, trading as BRIGGS PRIESTLEY & SONS. Piece goods in which silk predominates, 18th May, 1895.
5308. } BRIGGS PRIESTLEY and WILLIAM E. BRIGGS PRIESTLEY, Bradford,  
5309. } England, trading as BRIGGS PRIESTLEY & SONS.  
5310. } Textile fabrics of woollen, silk, cotton and linen, used as dress goods by women, 18th May, 1895.
5311. JOHN TAYLOR, Toronto, Ont. Cigars, 20th May, 1895.
5312. J. HIRSCH, SONS & COMPANY, Montreal, Que. Cigars, Tobacco and Cigarettes, 22nd May, 1895.
5313. P. McEVROY & SONS, Liverpool, England. Dairy and Farm Products, such as eggs, butter, cheese, bacon, hams and lard, 23th May, 1895.
5314. THE MARTIN DENNIS CHROME TANNAGE COMPANY, Newark, New Jersey, U.S.A. Chrome Tannage Liquor, 23th May, 1895.
5315. HENRY L. PIERCE, Boston, Mass., U.S.A., trading as WALTER BAKER & CO. Chocolate and Cocoa and preparations thereof, 27th May, 1895.
5316. MOSSBERG WRENCH COMPANY, Attleboro, Bristol Co., Mass., U.S.A. Whistles, 27th May, 1895.
5317. KINGSTON VEHICLE COMPANY, LIMITED, Kingston, Ont. All classes of vehicles, bicycles, tricycles and quadricycles, 27th May, 1895.

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5318. HENRY DAUBENEY BRANDRETH, 18 Hamilton Square, Birkenhead, Cheshire, England. Chemical Substances, prepared for use in Medicine and Pharmacy, 27th May, 1895.
5319. B. MURATTI, SONS & COMPANY, LIMITED, Manchester and London, England. Cigarettes, 27th May, 1895.
5320. THOMAS J. FAIR, Brantford, Ont. Cigars, 29th May, 1895.
5321. EDWARD L. DREWRY, Winnipeg, Man. Soda Waters, and all other Aerated, Carbonated and Mineral Waters, Flavouring Extracts and Essences, Syrups for Confectioners' Use and Temperance Beverages generally, 29th May, 1895.
5322. EDWARD DELEVAN TILLSON, Tilsonburg, Ont. Oatmeal and Rolled Oats, 30th May, 1895.
5323. JULETTA B. HUFF, St. Catharines, Ont. Liniment, 31st May, 1895.
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# COPYRIGHTS

Entered during the month of May, 1895, at the Department of Agriculture—  
Copyright and Trade-Mark Branch.

7887. THE GOSPEL CHOIR. No. 2. By Ira D. Sankey, James McFrawahan and George C. Stebbins. The Copp, Clark Co., L'd., Toronto, Ont., 1st May, 1895.
7888. REID'S LIGHTNING NOTE SYSTEM. For the piano and organ. Chart. Samuel George Reid, Grimsby, Ont., 1st May, 1895.
7889. TRISECTION OF ANY GIVEN RECTILINEAL ANGLE, BY THE STRAIGHT LINE AND CIRCLE. New Perfect Edition. Print. Andrew Doyle, Ottawa, Ont., 2nd May, 1895.
7890. REVUE CANADIENNE, MAI 1895. C. O. Beauchemin & fils, Montréal, Qué., 3 mai 1895.
7891. PORTRAIT DE LÉON XIII. Photo. Albert Alexis Bélanger, Montréal, Qué., 3 mai 1895.
7892. CONTRAT ET DE CLAUSES GÉNÉRALES POUR CONSTRUCTION. Formule. J. Alcide Chasson, Montréal, Qué., 4 mai 1895.
7893. PORTRAITS OFFICIELS DES SOUVERAINS PONTIFES DEPUIS ST. PIERRE JUSQU'A LÉON XIII. D'après les 263 Médailles en Mosaïque de St. Paul-hors-les-murs à Rome. Albert Alexis Bélanger, Montréal, Qué., 4 mai, 1895.
7894. THE TZARITZA WALTZ. For piano. By Florence M. Wade. Whaley, Royce & Co., Toronto, Ont., 6th May, 1895.
7895. FOREST, LAKE AND PRAIRIE. Twenty Years of Frontier Life in Western Canada, 1842-1862. By John McDougall. Wm. Briggs, Book-Steward of the Methodist Book and Publishing House, Toronto, Ont., 6th May, 1895.
7896. THE MANITOBA SCHOOL QUESTION—CONSIDERED HISTORICALLY, LEGALLY AND CONTROVERSIAALLY. By Louis F. Kribs, Toronto, Ont., 6th May, 1895.
7897. THE BONANZA PHILOSOPHY. By James Prendergast Armstrong, Township of Clarendon, Que., 6th May, 1895.
7898. LA PROTECTION AU CANADA. Conférence par M. G. Amyot, M. P., le 14 mars 1895, aux Salles du Club Cartier-Macdonald. Guillaume Amyot, Québec, Qué., 7 mai 1895.
7899. NOTIZ to EINER MUSS HEIRATEN and EIGENSINN and EXERCISES to AUS DEM LEBEN EINES TAUGENICHTS. By W. H. Van der Smissen. The Copp, Clark Co., L'd., Toronto, Ont., 8th May, 1895.
7900. WHITE PETUNIA. Song. Words by Miss M. Foster. Music by Mrs. J. Siddall. Whaley, Royce & Co., Toronto, Ont., 9th May, 1895.
7901. WHOSE LITTLE GIRL ARE YOU? Song. Words by Thomas Naismyth. Music by George Rosey. Whaley, Royce & Co., Toronto, Ont., 9th May, 1895.
7902. EBB AND FLOW. Words by Clifton Bingham. Music by Chas. A. E. Harris. Whaley, Royce & Co., Toronto, Ont., 9th May, 1895.
7903. SEVENTH REGIMENT. Two Step. By J. J. Dunn, jr. Whaley, Royce & Co., Toronto, Ont., 10th May, 1895.
7904. POLITICAL APPOINTMENTS and ELECTIONS in the PROVINCE OF CANADA, 1841 to 1865. Edited by J. O. Côté, N.P., now deceased.—Marie Julie Côté, widow, Rachel Hamel, wife of Félix Marcel Hamel, Narcisse Omer Côté, Pierre Martial Côté, Joseph Arthur Côté, Francis Alexandre Côté and Lydie Côté, of Ottawa, Ontario, the widow and children of Joseph Olivier Côté, deceased, 10th May, 1895.
7905. GRAFTON'S GRADED ARITHMETIC. Book II. By F. W. Arthy. F. E. Grafton & Sons, Montréal, Que., 10th May, 1895.
7906. CATALOGUE of BEVELLED PLATE and other GLASS in NEW METALLIC GLAZING. Napoleon Theodore Lyon, Toronto, Ontario, 14th May, 1895.
7907. WATCHERS of TWILIGHT and OTHER POEMS. By Arthur J. Stringer, London, Ont., 14th May, 1895.
7908. COLLECTION OF ORANGE SONGS. Whaley, Royce & Co., Toronto, Ont., 15th May, 1895.



7909. FORM No. 1. Collecting letter. The Canada and New England Trust and Collecting Company, Limited, St. John, N.B., 17th May, 1895.
7910. FORM No. 2. Collecting letter. The Canada and New England Trust and Collecting Company, Limited, St. John, N.B., 17th May, 1895.
7911. FORM No. 3. Collecting letter. The Canada and New England Trust and Collecting Company, Limited, St. John, N.B., 17th May, 1895.
7912. FORM No. 4. Collecting letter. The Canada and New England Trust and Collecting Company, Limited, St. John, N.B., 17th May, 1895.
7913. FORM No. 5. Subscriber's contract. The Canada and New England Trust and Collecting Company, Limited, St. John, N.B., 17th May, 1895.
7914. FORM NO. 6. List of accounts. The Canada and New England Trust and Collecting Company, Limited, St. John, N.B., 17th May, 1895.
7915. WAGHORN'S MAIL CARD. Issued with WAGHORN'S GUIDE. James Rawlinson Waghorn, Winnipeg, Manitoba, 17th May, 1895.
7916. FAN-SHAPED MAP OF THE WORLD. Developed from isoconic projection, by James Henry Chewett, C. E., Toronto, Ont., 18th May, 1895.
7917. THE PASTOR'S PRACTICAL RECORD. Jacob Howe, Stevensville, Ont., 18th May, 1895.
7918. THE MYSTERY OF THE MOON OR THE LAWS AND LOGIC OF THE LUNATICS. A Satire which is now being preliminarily published in separate articles in THE LAMP, Toronto, Ontario. Temporary Copyright. Duncan S. Macroquodale, Toronto, Ont., 18th May, 1895.
7919. MAY AND I. Words by Thomas Rowley. Music by Arthur M. Cohen. Whaley, Royce & Co., Toronto, Ont., 20th May, 1895.
7920. THE CATHOLIC CHURCH IN THE NIAGARA PENINSULA, 1626-1895. By Dean Harris. William Briggs, (Book-Steward of the Methodist Book and Publishing House,) Toronto, Ont., 20th May, 1895.
7921. GOSPEL HYMNS, NOS. 1 TO 6 COMPLETE. By Ira D. Sankey, James McGranahan and George C. Stebbins. The Copp, Clark Co., Ltd., Toronto, Ont., 21st May, 1895.
7922. CYCLISTS' COMPLETE GUIDE TO ONTARIO ROADS. Henry J. Farr, Toronto, Ont., 22nd May, 1895.
7923. THE TORONTO STREET DIRECTORY AND ELECTRIC RAILWAY GUIDE. Thomas Pardoe, Toronto, Ont., 22nd May, 1895.
7924. I'LL MARRY SWEET MAME IN MAY. Words and music by I. O. W. Nutting. Arranged by C. J. Birkett. Albert E. Dion, Ottawa, Ont., 22nd May, 1895.
7925. THE GUIDE TO QUEBEC. By E. T. D. Chambers, Quebec, Que., 25th May, 1895.
7926. THE HERO OF THE DRAMA OF GENESIS. An Epic of Sacred Story. By Rev. J. Harry King, Lawrencetown, Annapolis Co., N. S., 25th May, 1895.
7927. FROLIC OF THE COONS. A Piccaninny Gambol. By Frank L. Gurney. Whaley, Royce & Co., Toronto, Ont., 25th May, 1895.
7928. ONLY ONE GIRL IN THE WORLD FOR ME. Song and Chorus. Words and Music by David Marion. Whaley, Royce & Co., Toronto, Ont., 25th May, 1895.
7929. STORIES MOTHER TOLD. Words by Wm. Kennedy. Music by Frank L. Gurney. Whaley, Royce & Co., Toronto, Ont., 25th May, 1895.
7930. GO WEST YOUNG WOMAN. Story which is now being preliminarily published in separate articles in the RUSSELL CHRONICLE of Russell, Manitoba. Miss E. M. Boulton, Russell, Man., 25th May, 1895.
7931. LULLABY SONG. Sleep, Sleep, My Baby, Sleep. Piano accompaniment By Prof. W. G. Workman, Ottawa, Ont., 25th May, 1895.
7932. THE FAD WALTZES. By Mildred D. Campbell. Whaley, Royce & Co., Toronto, Ont., 27th May, 1895.
7933. OH CHILD OF MINE. Song. Words by C. R. Gaugh. Music by Arthur J. McWatters. Whaley, Royce & Co., Toronto, Ont., 27th May, 1895.
7934. VINCA. Valco Somplice. For the Piano. By Thomas Nichols, Toronto, Ont., 27th May, 1895.
7935. SONGS OF THE PINES. By James Ernest Caldwell, Carleton Co., Ont., 28th May, 1895.

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7936. THE DAIRYMAN'S JOURNAL, CASH ACCOUNT, CALENDAR AND ADVERTISER. James Adna Conger, Belleville, Ont., 29th May, 1895.
7937. LULLA-BABY-BYE. Lullaby Song. By C. L. M. Harris. Whaley, Royce & Co., Toronto, Ont., 30th May, 1895.
7938. L'INDICATEUR DE QUEBEC ET LÉVIS, 1895-96. (The Quebec and Lévis Directory.) T. L. Boulanger & Ed. Marcotte, Québec, Qué., 30 mai, 1895.
7939. THE SOUSA WALTZES. By J. Carlon. The Anglo-Canadian Music Publishers' Association, Limited, London, England, 31st May, 1895.
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